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PROCEEDINGS

OF THE

TWENTY-FIFTH ANNUAL SESSION

OF THE

91919
Homoeopathic Medical Society

OF THE

STATE OF OHIO,

HELD AT

CINCINNATI, MAY 14 and 15, 1889.

REPORTED AND EDITED BY THE SECRETARY.

CLEVELAND, O.:

THE CLEVELAND PRINTING AND PUBLISHING CO.

1889.

To the Members of the Homœopathic Society of Ohio:

We respectfully submit the proceedings of your
twenty-fifth annual session, held in Cincinnati, May
14 and 15, 1889.

FRANK KRAFT, M. D.,

H. POMEROY, M. D.,

Committee of Publication.

OFFICERS 1888-9.

PRESIDENT—C. E. WALTON, M. D., Hamilton.
FIRST VICE-PRESIDENT—C. L. CLEVELAND, M. D., Cleveland.
SECOND VICE-PRESIDENT—FRANCES G. DERBY, M. D., Cleveland.
SECRETARY—FRANK KRAFT, M. D., Sylvania.
ASSISTANT SECRETARY—C. D. CRANK, M. D., Cincinnati.
TREASURER—H. POMEROY, M. D., Cleveland.
NECROLOGIST—D. H. BECKWITH, M. D., Cleveland.

CENSORS.

H. E. BEEBE, M. D., *Chairman*, Sidney.
J. H. WILSON, M. D., Bellefontaine.
J. D. BUCK, M. D., Cincinnati.
WM. OWENS, M. D., Cincinnati.
R. N. WARREN, M. D., Wooster.
E. R. EGGLESTON, M. D., Mt. Vernon.
FLORA A. WADDELL, M. D., Wauseon.

OFFICERS 1889-90.

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FIRST VICE-PRESIDENT—ORPHA D. BALDWIN, M. D., Cleveland.
SECOND VICE-PRESIDENT—C. A. PAULY, M. D., Cincinnati.
SECRETARY—FRANK KRAFT, M. D., Sylvania.
ASSISTANT SECRETARY—C. C. TRUE, M. D., Cleveland.
TREASURER—H. POMEROY, M. D., Cleveland.
NECROLOGIST—D. H. BECKWITH, M. D., Cleveland.

CENSORS.

H. B. VAN NORMAN, M. D., *Chairman*, Cleveland.
H. E. BEEBE, M. D., Sidney.
J. H. WILSON, M. D., Bellefontaine.
WM. OWENS, SR., M. D., Cincinnati.
R. N. WARREN, M. D., Wooster.
E. R. EGGLESTON, M. D., Mt. Vernon.
FLORA A. WADDELL, M. D., Wauseon.

INDEX.

	PAGE.
Minutes,	7
Treasurer's Report,	8
Secretary's Report,	8
Delegates' Report,	9
Censors' Report,	13
Social Festivities,	15
Necrologist's Report,	17, 219
Report of Committee on President's Address,	19
Election of Officers,	21
President's Appointments,	21
President's Address,	24
Bureau of Registration, Legislation and Statistics.	
Salaries of Medical Employes of Ohio Charitable Institutions,	36
Discussion,	38
Bureau of Sanitary Science.	
Heating and Ventilating of Public Buildings, and a New Method of Sewage Disposal,	41
Discussion,	51
Necessity for Pure Drinking Water,	58
Natural Gas,	60
Discussion,	62
Milk Adulteration, and the Quality best Adapted for Family Use, .	63
Recent Advances in Etiological Science,	71
Bureau of Materia Medica.	
Magnesia Phos.—proving,	78
Discussion,	80
Bureau of Pædology.	
On the Etiology and Pathology of Post-Scarlatinal Nephritis,	83
Discussion,	86
Therapeutics of Post-Scarlatinal Nephritis,	89
Discussion,	92
Food for Infants,	94
Discussion,	97
Hints on Pædology,	97
Bureau of Clinical Medicine.	
Salol and Passiflora Incarnata,	102
Discussion,	104
Case Cured by Lachesis,	104
Discussion,	105
Vaccination Vagaries,	109
Discussion,	112
Rupture of the Diaphragm and Intestine,	114

Bureau of Anatomy, Physiology and Pathology.

	PAGE.
Infant Diet,	118

Bureau of Surgery.

The Sexual Organs of a Thousand Convicts,	122
Discussion,	125
The Rectum as a Diseased Center,	126
Discussion,	129
Traumatic Tetanus,	130
Railroad Surgery,	133
Discussion,	136
A New Method of Amputation at the Ankle Joint,	139

Bureau of Obstetrics.

Abortion and its Treatment,	143
Posture in Labor,	147
Discussion,	152
Puerperal Fever,	153
Puerperal Fever: A Composite Paper,	157
Discussion,	164
The Diagnosis of Pregnancy,	166
Discussion,	167

Bureau of Nervous Diseases.

Hysteria,	172
Discussion,	179
The Relation of Reason to the Sensorium,	180
Discussion,	184
Sleeplessness,	186

Bureau of Gynæcology.

Dry Heat in Cystitis of the Female,	194
Discussion,	197
History, Pathology and Etiology of Salpingitis,	199
Symptoms, Prevention and Therapeutical Treatment of Salpingitis,	204
Discussion,	208

Bureau of Ophthalmology and Otology.

Jequerity Bean in the Treatment of Trachoma,	213
Sympathetic Ophthalmia,	216
Graphites in Recurring Granular Conjunctivitis,	218
Constitution,	222
By-Laws,	224
Standing Resolutions,	225
Officers since Organization,	227
Members,	232

Homœopathic Medical Society of Ohio.

MINUTES.

First Day—Morning Session—Tuesday, 10 A. M.

CINCINNATI, O., May 14, 1889.

The Twenty-fifth Annual Session of the Homœopathic Medical Society of the State of Ohio was convened in the rooms of the Lincoln Club House, corner of Eighth and Race streets, with President Chas. E. Walton, M. D., of Cincinnati, in the chair. Promptly at the hour named, a goodly number of the members being in attendance, the gavel fell and the Society was called to order.

Owing to the incompleteness of the Censors' report, that order of business was temporarily passed.

The reading of the minutes of the last annual session of the Society was also dispensed with, as the aforesaid minutes had been printed and published and were in the possession of each member.

The report of the Treasurer was then presented as follows :

TREASURER'S REPORT.

CLEVELAND, O., May 14, 1889.

RECEIPTS.

Cash on hand May 8, 1888	\$ 22.55
Dues collected during the year	292.00
Total.	<u>\$314.55</u>

PAYMENTS.

Cash expended Dr. C. Walton	\$ 39.00
Dr. F. Kraft.	9.00
Janitor at Delaware	5.00
Buell & Roberts	2.00
W. F. Copeland (stenographer)	17.75
Postage, stationery, etc.	20.00
Hamilton News and Telegraph Co. for publishing pro- ceedings.	<u>206.15</u>
Total.	<u>\$298.90</u>
Balance cash on hand, May 14, 1889	\$15.65

Respectfully submitted,

H. POMEROY, Treas.

This report was referred to an Auditing Committee, which reported as follows :

CINCINNATI, O., May 14, 1889.

After a careful examination, we find the annual report of the Treasurer for 1889 correct.

O. A. PALMER, Chairman,	} Auditing Committee.
A. CLAYPOOL,	
C. HOYT,	

The Secretary's report being called for, Dr. Kraft presented an oral statement to the effect that he had administered the duties of his office as carefully as he had understood them ; and that the expenses for the current year for postal cards, printing and mailing amounted to \$48.00.

The Committee on Publication reported by presenting the printed report of the transactions of the Society held at Delaware, May 8th and 9th, 1888.

DELEGATES' REPORT.

The report from delegates of other Societies being called for, Dr. Wm. Webster, of Dayton, presented his credentials from the Montgomery County Society. Dr. Martha May Howells reported as delegate, with Dr. M. J. Booth, alternate, from the League of Women Homœopathic Physicians, of Hamilton county.

DR. D. H. BECKWITH—I will say that some six or seven years ago the State Sanitary Association was formed regardless of schools, and a general invitation was extended for the different societies of the State to send representatives and delegates. So far it has not been very well attended by members of our school, Dr. Beebe and Dr. Eggleston being the only two who have prepared papers. Of the papers read, Dr. Eggleston received the compliments of the convention of having presented the best paper read. The papers presented to this association are prepared on all the sanitary subjects—drainage, ventilation, etc., throughout the country. Dr. Wm. Owens was with us in Toledo and did good work; he did so much throughout the country I trust he will again take up the subject and meet with us in Dayton, where we shall hold our next meeting. I really hope that our school will have some good papers and be present to read them. Dr. Beckwith then stated that he had been elected president, and hoped that our school would come to his aid.

DR. C. E. WALTON—As delegate to the American Institute of Homœopathy, I will state that Dr. Hunt and myself were both present, but owing to the pressure of business no delegate reports were received in open session, and we had no opportunity for bringing direct notice of our Society to the Institute.

BUREAU OF REGISTRATION, LEGISLATION AND STATISTICS.

This bureau presented :

H. E. Beebe, M. D.: "Salaries of Medical Employés of Ohio Charitable Institutions."

This paper was received and referred to Publication Committee, having been first discussed by Drs. Beckwith, Beebe, Palmer and Claypool.

BUREAU OF SANITARY SCIENCE.

In the absence of the Chairman, Dr. D. H. Beckwith assumed charge of the bureau.

This bureau presented :

J. W. Clemmer, M. D.: "Heating and Ventilation of Public Buildings, and a New Method of Sewage Disposal."

D. H. Beckwith, M. D.: "Milk Adulteration and the Quality best Adapted for Family Use."

R. D. Tipple, M. D.: "The Necessity for Pure Drinking Water."

J. C. Fahnestock, M. D.: "Natural Gas."

These papers were received and discussed by Drs. Owens, Claypool, Sanders, Gann, Edgar, House, Pratt, Monroe and Beckwith.

The paper of the absent Chairman, Dr. E. R. Eggleston, of Mt. Vernon, was then read by the Secretary. At the conclusion of the reading, all the papers of the bureau were referred to the Publication Committee and the bureau closed.

The Society then took a recess until 2 P. M.

First Day—Afternoon Session.

On re-assembling, Dr. Wm. Owens, Sr., arose and said :

On behalf of the profession of this city, we extend to you a cordial welcome to our city and this beautiful hall provided for your use. We trust your stay with us will be pleasant, and your meditations wise and profitable to yourselves and the profession generally. Now, on behalf of the citizens of Cincinnati, I have the honor to introduce to you the Hon. John B. Mosby, Mayor of our city, who will address you.

Mr. Mosby said :

Gentlemen of the Homœopathic Medical Profession :

It is a pleasant duty, I assure you, to welcome you to Cincinnati and to call your attention to the fact that through the great labor of our Board of Public Affairs and its health office we have, in the last three years, been able to place Cincinnati in the foremost ranks as to sanitary condition. With the sewers we now have, and those that have been authorized by that Board, we will have as perfect a system of sewerage as any city in this great nation. With our miles of granite and asphalt streets we are enabled to approach that cleanliness which, with *good* sewerage, is sure preventive of any epidemics. With the cheap facilities of reaching our grand hills and natural parks with which nature has endowed us, every citizen of Cincinnati, with his family, is enabled to breathe that pure air which is conducive to good health; good health brings happiness, the bright eye, the elastic step, the cheerful voice, the merry laugh, the kiss that generally seals the greeting of the father, husband or brother as he returns from his daily avocation, and as his lips leave those of his wife or his sister or his mother, his radiant countenance, aglow with health and happiness, seems to say "Peace on Earth, Good Will to Man." [Applause.]

Response on behalf of the Society.

Dr. Lounsbury said :

It affords me great pleasure to respond on behalf of the Homœopathic Medical Society of Ohio to the cordial greetings of his Honor, the Mayor of Cincinnati.

We thank you for these words of welcome and for the courtesies thus extended. We feel honored by your kind allusion to us as an intelligent body of professional men. This we appropriate to ourselves. You, Mr. Mayor, have referred to the fact that from such men much may be learned or derived for the public good. Our chief motive in gathering here from the cities, towns and hamlets of the State, is to work for the public welfare.

While some cities have been devastated by epidemics, and scourged by disease, your city has been spared such visitations, probably by the observance of the laws of health which such societies promulgate. Your city, by an admirable system of sewerage, and by providing good streets and pavements, has done itself credit and added to her beauty and health.

Whatever we, as a society of physicians, can do to further such enterprises is a duty we owe to our cities and to our great State. This it is our earnest purpose to do.

Again, Mr. Mayor, permit me to gather up all the kind feelings and the courteous thoughts of this large society, and in one sentence condense our expression as follows: "We thank you heartily and sincerely for your kind welcome, and we cordially accept your courtesies. [Applause.]

The annual address of the President was then presented by Charles E. Walton, M. D., and referred to a committee consisting of Drs. Sanders, Allen and Moore.

BUREAU OF MATERIA MEDICA.

DR. ALLEN—Drug-proving is up-hill work, and those who have had any experience in this line I think will verify my statement. Out of forty-six provers engaged this last year on a drug, I have

four partial reports. The proving is a continuation of what was presented last year on Magnesia phos., and consists of the provings reported by Drs. H. C. Allen, J. C. Fahnestock, O. W. Lounsbury and J. A. Gann.

At this point, Dr. Claypool is appointed Treasurer *pro tem.*

BUREAU OF PÆDOLOGY.

Dr. Wm. Owens, Sr., Chairman *pro tem.*

This bureau presented :

"On the Etiology and Pathology of Post-Scarlatinal Nephritis," by C. D. Crank, M. D., Cincinnati.

"Therapeutics of Post-Scarlatinal Nephritis," by Wm. Owens, Sr., M. D., Cincinnati.

"Food for Infants," by Alice M. Tracy, M. D., Urbana.

"Hints on Pædology," by T. C. Duncan, M. D., Chicago.

CENSORS' REPORT.

The following were presented by the Censors for membership, and were elected :

NAMES.	RESIDENCE.	WHERE GRADUATED.	DATE.
Amesbury, W. Raleigh,	Cincinnati,	Boston University,	1886
Cooper, C. M.,	Cincinnati,	Hahnemann, Chicago,	1885
Countryman, A. M.,	Cincinnati,	Pulte Med. College,	1881
Dickson, Madge,	Dayton,	Cleveland Hosp. Coll.,	1885
Ehrman, Geo. B.,	Cincinnati,	Pulte Med. College,	1883
Ferris, Jacob,	College Hill,	Eclectic Med. Institute,	1868
Frasch, Geo. F.,	Metamora,	Hahnemann, Chicago,	1886
Geohegan, Wm. A.,	Cincinnati,	Pulte Med. College,	1882
Hills, H. B.,	Cincinnati,	Pulte Med. College,	1888

14 CLINICAL MEDICINE—ANATOMY, PHYSIOLOGY AND PATHOLOGY.

NAMES.	RESIDENCE.	WHERE GRADUATED.	DATE.
Holaday, Elwood,	West Elkton,	Pulte Med. College,	1885
Howell, C. A.,	Columbus,	Cleveland Hosp. Coll.,	1888
Hunt, Stella,	Cincinnati,	Pulte Med. College,	1882
Linkmyer, M. Belle,	Lackland,	Pulte Med. College,	1885
Linn, T. E.,	Cincinnati,	Pulte Med. College,	1888
Meade, S. J. D.,	Cincinnati,	Pulte Med. College,	1885
Robb, Isaac,	Cincinnati,	Pulte Med. College,	1882
Rosenberger, A. S.,	Covington, Ky.,	Clev. Hosp. Coll.,	1870
Williams, W. L.,	Cincinnati,	Pulte Med. College,	1875

BUREAU OF CLINICAL MEDICINE.

O. A. Palmer, M. D., Warren, Chairman *pro tem*.

This bureau presented:

"Salol and Passiflora Incarnata," by C. O. Munns, M. D., Oxford.

"Case Cured by Lachesis," by J. C. Fahnestock, M. D., Piqua.

"Vaccination Vagaries," by Frank Kraft, M. D., Sylvania.

"Rupture of the Diaphragm and Intestine," by H. W. Carter, M. D., Cuyahoga Falls.

BUREAU OF ANATOMY, PHYSIOLOGY AND PATHOLOGY.

This bureau presented the paper of its absent Chairman, Dr. H. Pomeroy, of Cleveland, on "A New Food for Infants," and was read by Dr. T. C. Martin.

The Society then adjourned until 9 o'clock A. M., Wednesday.

SOCIAL FESTIVITIES.

TUESDAY, May 14, 1889.

At 9 o'clock P. M., between one hundred and fifty and two hundred persons sat down to a banquet provided by the Cincinnati brethren at the Gibson House—a banquet which forever dispelled the illusion that a banquet meant a cold or an indifferent collation of broken meats. The service was excellent. The material part of the exercise was in fine taste, the decorations tasteful, and the toasts apropos and responded to with vigor.

The toastmaster, Dr. C. D. Crank, was in his element, his introductions of the toasts and speakers scintillating with wit and good humor. His hits were palpable. "Our State Society" was responded to by the President in the following words, which was frequently interrupted with laughter and applause :

I am grateful at having been asked to respond to a toast. Without the expectation of speech-making I would have lost that gentle impetus to an appetite so well known to all who have come under the benign influence of a toastmaster. The subtle spirit of expectancy which ever hovers over the banquet hall, and rests like the incubus of a nightmare upon the speaker, needs to be felt to be appreciated. I respond to this toast for two reasons: first, that no one else need to respond to it, and to this extent I should be looked upon as a public benefactor; second, because it is one of the perquisites of the president's office, and I had to; to this extent, I should be looked upon as a public martyr. To be at once a public benefactor and a martyr is almost too much distinction to be borne by one person, and possibly for this reason many speakers divide the honors and make martyrs of the audience. Our society is an example of organized offensive partisanship. It furnishes us a place where we can conceal our own mistakes and criticise liberally those of the fellow around the corner, and if he doesn't like it he

can stay around the corner and be as silent as he pleases. For twenty-five years this state has had an organization known as the Homœopathic Medical Society of Ohio, with the avowed purpose of advancing medical science. In years we are the ninth, and in size we are the fifth in the United States. Our meetings are annual as to time, and migratory as to place. This society has done much to promote an *esprit de corps* among the profession, and furnishes us a means of protection against oppressive opposition. It has ever advocated the advancement of medical education and the preservation of public health. Recognizing the intimate relationship ever existing between the physician and the public by elevating and maintaining a high standard for membership among its ranks, it can accomplish by an organized effort more than can be expected to be effected by any individual effort, and it is worthy the support of every unselfish man and woman in the profession. Like the golden orb of day (that sounds like poetry, but it isn't) it shines for all, and no one need stay in the shade from necessity, except that one whose practice will not endure the full light of inspection; and if one isolates himself from its membership from choice, he should have a better excuse than fear of the rapacious treasurer or a hypercritical estimate of the society's usefulness. We look upon the presence of so many members and friends to-night as a harbinger of a bright future, and we enter upon the second quarter of our century cheered by the assurance of passed efforts well done, and with the expectation of a continuous prosperity.—*American Homœopathist.*

Dr. A. L. Monroe, of Louisville, responded to "Our Guests." Dr. E. H. Pratt did justice to "The Western Physician." "The Medical Press" called up Dr. H. C. Allen, of Ann Arbor; "State Limitations," Dr. D. H. Beckwith; "The Future," Dr. J. A. Gann; "Medical Education," Dr. J. D. Buck; Dr. J. C. Sanders gallantly proposed "The Ladies."

Second Day—Morning Session—Wednesday, 9 A. M.

On re-assembling, Dr. Orpha D. Baldwin was appointed Treasurer *pro tem.*, Dr. Claypool asking to be relieved.

The Board of Censors reported progress.

NECROLOGIST'S REPORT.

D. H. Beckwith, M. D., the Necrologist, presented his report, which, with tribute paid to our departed brethren, will be found in succeeding pages.

BUREAU OF SURGERY.

Letters were read from Drs. Schneider and Hunt, informing the Society of the illness of these brethren.

The bureau presented :

"The Sexual Organs of a Thousand Convicts," by T. C. Martin, M. D., Columbus.

"Orificial Surgery," by C. A. Pauly, M. D., Cincinnati.

An address by E. H. Pratt, M. D., Chicago.

"Traumatic Tetanus," by Geo. W. Moore, M. D., Springfield.

"Railroad Surgery," by O. A. Palmer, M. D., Warren.

"A New Method of Amputation at the Ankle Joint," by John Deetrick, M. D., Youngstown.

On motion, properly seconded, Dr. E. H. Pratt was made an honorary member of this Society.

These papers were discussed by Drs. Beckwith, Pratt, Palmer, Sanders, Monroe, Parmalee and Owens.

At his own request, Dr. R. B. House, formerly an honorary member (by reason of removal from the State), having returned to the jurisdiction of this Society, was restored to active membership.

BUREAU OF OBSTETRICS.

This bureau presented :

"Abortion and its Treatment," by Wm. Hoyt, M. D., Cleveland.

"Posture in Labor," by J. C. Sanders, M. D., Cleveland.

"Puerperal Fever," by H. B. Van Norman, M. D., Cleveland.

A composite paper on "Puerperal Fever," by Drs. T. E. Reed, C. O. Munns and J. W. Means.

"Diagnosis of Pregnancy," by Orpha D. Baldwin, M. D., Cleveland.

These papers were discussed by Drs. Palmer, Sanders, Monroe, Lovett, Owens, Outland, Fahnestock, Parmalee, Eaton, Deetrick, Crawford and Johnson.

On motion of Dr. Allen, a vote of thanks was tendered the Cincinnati physicians for the excellent and admirable banquet furnished the physicians of the State on the preceding evening.

Drs. Beckwith, Monroe and others spoke at length in praise of the hospitality of the Cincinnati brethren.

At this point, a recess was taken till 2 o'clock P. M.

Afternoon Session.

REPORT OF COMMITTEE ON PRESIDENT'S ADDRESS.

The Committee to whom was referred the President's Address respectfully report as follows :

FIRST—In general statement we heartily commend the address to the profession of the State. It is able and scholarly, and abreast with the demands of the hour.

SECOND—Its specific recommendation as to a State Board of Examiners we regard as impracticable in Ohio, from our own belief that our Legislature would not entertain a bill for the establishment of separate Examining Boards agreeably with his recommendation. We would rather recommend the establishment of a single Board, *with equal representation from the different schools.*

THIRD—We highly commend his appeal for a distinct graded course, such as the schools have been aiming at for several years past to meet the demands for a higher standard of medical education.

J. C. SANDERS,	}	Committee.
GEO. W. MOORE,		
H. C. ALLEN,		

May 15, 1889.

Report received and Committee discharged.

BUREAU OF NERVOUS DISEASES.

This bureau presented :

"Hysteria," by Stella Hunt, M. D., Cincinnati.

"The Relation of Reason to the Sensorium," by J. D. Buck, M. D., Cincinnati.

"Sleeplessness," by J. A. Gann, M. D., Wooster.

These papers were discussed by Drs. Crawford, Gann, Sanders, Pratt and Buck.

BUREAU OF GYNÆCOLOGY.

This bureau presented :

“Dry Heat in Cystitis of the Female,” by Chas. Hoyt, M. D., Chillicothe.

“History, Pathology and Etiology of Salpingitis,” by Albert Claypool, M. D., Toledo.

“Symptoms, Prevention and the Therapeutical Treatment of Salpingitis,” by M. H. Parmalee, M. D., Toledo.

These papers were discussed by Drs. Claypool, Allen, Ferris, Beckwith, Palmer and Parmalee.

BUREAU OF OPHTHALMOLOGY AND OTOTOLOGY.

This bureau presented :

“Jequerity Bean in the Treatment of Trachoma,” by R. D. Tipple, M. D., Toledo.

“Sympathetic Ophthalmia,” by O. A. Palmer, M. D., Warren.

“Graphites in Recurring Granular Conjunctivitis,” by F. F. Casseday, M. D., Kansas City.

On motion of Dr. Allen, Dr. Lounsbury, who had been acting on the Bureau of Materia Medica under appointment of the President to fill the unexpired term of Dr. Cleveland, was elected to serve four years; and Dr. Kraft to serve one year in place of Dr. Hershberger, whose term expired.

On motion of Dr. Clemmer, Dr. A. M. Monroe was elected an honorary member.

On motion, Cleveland was chosen as the place of the next annual meeting.

ELECTION OF OFFICERS.

On motion, the Society proceeded to the election of officers, with the following results :

President—John A. Gann, M. D., Wooster.

First Vice-President—Orpha D. Baldwin, M. D., Cleveland.

Second Vice-President—C. A. Pauly, M. D., Cincinnati.

Secretary—Frank Kraft, M. D., Sylvania.

Assistant Secretary—C. C. True, M. D., Cleveland.

Treasurer—H. Pomeroy, M. D., Cleveland.

Necrologist—D. H. Beckwith, M. D., Cleveland.

Board of Censors—H. B. Van Norman, M. D., Cleveland, Chairman; H. E. Beebe, M. D., Sidney; J. H. Wilson, M. D., Bellefontaine; Wm. Owens, Sr., M. D., Cincinnati; R. N. Warren, M. D., Wooster; E. R. Eggleston, M. D., Mount Vernon; Flora A. Waddell, M. D., Wauseon.

PRESIDENT'S APPOINTMENTS.

The President announced the following appointments for the ensuing year :

LEGISLATION AND STATISTICS.

Wm. Owens, Sr., M. D., Chairman, Cincinnati.

J. A. Gann, M. D., Wooster; H. E. Beebe, M. D., Sidney; D. H. Beckwith, M. D., Cleveland; A. Claypool, M. D., Toledo.

SANITARY SCIENCE.

D. H. Beckwith, M. D., Chairman, Cleveland.

E. R. Eggleston, M. D., Mt. Vernon; H. E. Beebe, M. D., Sidney; J. W. Clemmer, M. D., Columbus; W. A. Geohegan, M. D., Cincinnati; T. E. Linn, M. D., Cincinnati.

PEDOLOGY.

M. P. Hunt, M. D., Chairman, Delaware.

C. D. Crank, M. D., Cincinnati; Alice M. Tracy, M. D., Urbana; Mary A. Gault, M. D., Cleveland; Wm. Owens, Sr., Cincinnati; Martha M. Howells, M. D., Cincinnati.

CLINICAL MÉDICINE.

C. O. Munns, M. D., Chairman, Oxford.

A. A. Lovett, M. D., Eaton; R. B. House, M. D., Springfield; Flora A. Waddell, M. D., Wauseon; B. S. Hunt, M. D., Tawana; S. F. Edgar, M. D., Zanesville; N. O. Brenizer, M. D., Prospect; T. E. Reed, M. D., Middletown; J. W. Means, M. D., Troy; Frank Kraft, M. D., Sylvania.

ANATOMY, PHYSIOLOGY AND PATHOLOGY.

A. L. McCormick, M. D., Chairman, Cincinnati.

Wm. Owens, Jr., Cincinnati; Wm. Gaylord, M. D., Sandusky.

GYNÆCOLOGY.

M. H. Parmalee, Chairman, Toledo.

Chas. Hoyt, M. D., Chillicothe; Albert Claypool, M. D., Toledo; M. M. Eaton, M. D., Cincinnati; H. F. Biggar, M. D., Cleveland; Madge Dixon, M. D., Dayton.

SURGERY.

G. W. Moore, M. D., Chairman, Springfield.

C. E. Walton, M. D., Cincinnati; N. Schneider, M. D., Cleveland; C. A. Pauly, M. D., Cincinnati; T. C. Martin, M. D., Columbus; J. Deetrick, M. D., Youngstown; D. W. Hartshorn, M. D., Cincinnati; O. A. Palmer, M. D., Warren.

OBSTETRICS.

J. Kent Sanders, M. D., Chairman, Cleveland.

Wm. Hoyt, M. D., Chillicothe; Ellen M. Kirk, M. D., Cincinnati; J. C. Sanders, M. D., Cleveland; O. D. Baldwin, M. D., Cleveland; H. B. Van Norman, M. D., Cleveland.

NERVOUS DISEASES.

J. D. Buck, M. D., Chairman, Cincinnati.

J. P. Hershberger, M. D., Lancaster; G. M. Ireland, M. D., Jeffersonville; Louis Barnes, M. D., Kipton; Stella Hunt, M. D., Cincinnati; T. G. Barnhill, M. D., Findlay; W. C. Hastings, M. D., Van Wert.

OPHTHALMOLOGY AND OTOTOLOGY.

G. C. McDermott, M. D., Chairman, Cincinnati.

R. D. Tipple, M. D., Toledo; W. A. Phillips, M. D., Cleveland; H. B. Hills, M. D., Cincinnati; T. M. Stewart, M. D., Cincinnati; B. B. Viets, M. D., Cleveland; F. H. Schell, M. D., Cincinnati.

DELEGATES.

American Institute—M. H. Parmalee, M. D., Toledo, and J. C. Sanders, M. D., of Cleveland.

Michigan State Society—H. C. Allen, M. D., Ann Arbor.

Kentucky—C. E. Walton, M. D., Cincinnati.

Ohio State Sanitary Association—Wm. Webster, M. D., Dayton.

Southern Association of Homœopathy—C. E. Walton, M. D., Cincinnati.

The following telegrams were received and read:

“The Homœopathic Medical Society of the State of Oregon, in convention assembled, sends greeting to the Homœopathic Society of the State of Ohio.

GEO. WIGG, M. D., President,
Portland, Oregon.”

“Please accept for the members a God-speed from one who was born, reared and educated as a Buckeye boy. Unavoidably detained.

A. I. SAWYER,
Monroe, Mich.”

Also letters from Drs. S. R. Beckwith, C. C. White, J. B. Owens, E. V. Van Norman and J. D. Graybill.

The Secretary was requested to make suitable acknowledgment of the receipt of these communications.

On motion of Dr. Owens, a vote of thanks was voted to the Lincoln Club for the use of this hall for the last two days. Also a vote of thanks to Daniel Fithian, the Superintendent of the Club Rooms, for his many courtesies to the members of the Society.

On motion of Dr. Beckwith, a vote of thanks was tendered Drs. Walton and Kraft as the working officers of the Society.

Adjourned.

PRESIDENT'S ADDRESS.

BY C. E. WALTON, M. D., CINCINNATI.

The emoluments of the President's office consist not alone in the honor and duty of conducting the sessions smoothly through their career, not alone in apportioning the work for the ensuing year, but in the privilege of voicing, to a certain extent, the sentiments of the society in regard to the purpose of its existence. I thank you, ladies and gentlemen, for the suffrages which a year ago placed me in a position to earn these emoluments as the presiding officer of the Homœopathic Society of the State of Ohio.

"The advancement of medical science" is the avowed object of our organization, according to the first article of our constitution, and the implied object, according to the italicized "*similia similibus curantur*" in Article II, is to look at medical science through homœopathic spectacles. In this case, the implied object is the pre-eminent one, for otherwise our organization would be without the slightest foundation upon which to rest.

For twenty-five years we have met as the exponents of a therapeutic law; of a law which we profess to recognize as nature's law, governing the action of drugs for the removal of disease.

For a quarter of a century, in the State of Ohio, has there been an organization for the promulgation of the truth that similars by similars may be cured; yes, more—are cured.

The believer in this truth no more doubts the existence of this law than he does the existence of the law of gravitation, and he has attained his belief in these laws by an identical course of experimentation and reflection. The action of strychnine upon the or-

ganization is no more beyond the pale of law than is the behavior of falling bodies, and one of nature's laws is no more an expression of exact truth than is another.

It is not unusual upon occasions of presidential addresses to do some missionary work in the way of recounting the origin of Homœopathy, but this is more than a "twice-told tale," and its repetition before an assembly of physicians is but a waste of time. It may not be inappropriate, however, to briefly recall the growth of our system of medicine from its introduction in 1825 in New York City by Dr. Gram. A soil suited for the development of advanced liberal ideas in politics and religion has proven no less congenial for the fruition of new medical ideas.

Old medicine and old forms of government are closely allied, bound by the common tie of so-called divine inheritance, and defended by the common bulwark of no-innovation. But where a government of, by, and for the people prevails, there new medicine has found a congenial atmosphere, and the time will come when the medicine for the people shall be demanded by the people, and the subterfuge of partisan examining boards be crushed in the maelstrom of enlightened public opinion. Sixty-four years ago there was but one homœopathic physician in all the length and breadth of these United States; now there are more than twelve thousand.

In 1840, the first medical society was organized; now there are a hundred and forty organizations.

Twenty years ago, we had no general hospitals; now we have twenty-eight.

Forty years ago, the first special hospital was opened; now there are thirty-three. And during that time forty-three dispensaries have been established and maintained.

In 1852, the first journal was printed; and now it leads the van with twenty-two for its followers.

Forty years ago, the first college was opened, and now fifteen shed their effulgence between Massachusetts Bay and the city of the Golden Gate.

What does all this mean?—this wondrous growth in less than

man's allotted three-score years and ten? Surely the ostracism and persecution of Hahnemann and his early followers proved to be a powerful impetus to the spread of their newly discovered truth, and an exemplification of the fact that "truth is great and shall prevail."

THE MODERN HOMŒOPATHIC PHYSICIAN.

It is not clear to my mind that the misrepresentations of partisan journalism have not distorted the correct idea of what a homœopathic physician actually is. To remove any error that may have arisen, allow me to predicate that a homœopathic physician is one who is a regular graduate of a legally incorporated college; he believes that the law expressed by "*similia similibus curantur*" furnishes the surest rule for the selection of drugs in their application to the relief of disease; that the only way to learn the action of drugs upon the human organism is to administer them to persons in health; that the effect of any drug is best observed by administering it singly; that in disease the least amount of a drug necessary to produce the wished-for result is the rational dose. He believes that you can drive a tack with a pile-driver, but it is at the expense of wasted energy; that you cannot drive a pile with a tack-hammer, and the attempt includes both waste of time and energy. He believes that the adaptation of possible means to possible ends is not inappropriate in the practice of scientific medicine, and that the exclusive use of the tack-hammer prescription, or the pile-driver formula, is not essentially characteristic of scientific methods. If he knows less of medicine than his allopathic brother he is but a poor physician, and if he knows not more he is a very poor homœopath. The more of allopathy he knows the better a homœopath he is, and the more of homœopathy he knows the less of allopathy he will practice. Much has been heard in the last sixty or seventy years of the "regular" and "irregular" doctor. The first prescribes without any rule (except that of imitation), and is consequently *regular*; the second tries to prescribe only by rule, and hence is conspicuously *irregular*.

At the present day, we are treated to the paradox of the allopath prescribing by the rule of both homœopathic selection and

dose, and he is the irregular; and the homœopath, with his large doses of antifebrin and salol, lays himself quite liable to the charge of being regular. Does this mean that the homœopathic lamb is preparing to rise up inside of the allopathic lion, after the manner of the post-historic millennial scheme, or is the Kilkenny-cat style of amalgamation working out another example of the survival of the fittest?

INFLUENCE OF THE PRESS.

The relation of the secular press to the practice of medicine and surgery is one of prime importance. While it may appear officious at times, and at times bubbles over with the inaccuracies of the immature reporter, experiencing for the first time the novelty of a surgical operation, and who endeavors in the goodness of his heart to repay the courtesy of him who invited him to witness the operation, the fact is patent that the public receives much valuable information, and is becoming better qualified to gauge the qualifications of a practitioner. Owing to the tutelage of the press, scarcely a day passes—certainly not a week—that the busy doctor is not called upon to quiet the fears of those who apprehend “blood-poisoning,” a term as valuable to the Liliputian diagnostician as its æsculan relative, “malaria.” It is now scarcely possible for the reading laity to submit to the strangling death of its offspring from diphtheritic croup without insisting that the attending physician shall either intube the larynx himself or have it done.

The people are learning that the old foggy who complacently permits nature to take her course is frequently more serviceable to the undertaker than to the community. Nature deprives us of life as easily as she furnishes it, and many times apparently with equally faulty judgment; but the physician's duty is to oppose one set of laws by another, and thus postpone the inevitable end. The press is doing valuable work by spreading broadcast reliable information in regard to practical means of conserving health, thus fortifying the public against the deficiencies of the unqualified practitioner.

BENEFIT OF SOCIETY MEETINGS.

It may have occurred to some to ask themselves what is the use

of attending the meetings of this society, involving, as it does, the loss of at least two whole days of business. We must not measure everything with a pecuniary yard-stick. There are occasions where this gauge, like the law of cure, is utterly inapplicable. There are so many reasons why one should meet with his fellow-practitioner in the discussion of common topics of interest that the negative reasons sink into insignificance.

The text-book essays are largely a thing of the past, or should be, and the desire for practical articles has become a demand which must be heeded if we expect to have successful meetings.

While it is true that there is nothing new in Homœopathy ; that the lycopodium symptoms of to-day are removed in the same way and just as readily as the lycopodium symptoms of fifty years ago ; that aconite, or belladonna, or any drug will remove its similar symptoms as it has ever done—there is needed repeated verifications of the fact, from diverse sources of testimony, and the society meetings furnish the opportunity for that free exchange of thought and observation which is so conducive to mutual improvement.

One hears occasionally the objection that the society is only of benefit to the college professors, and that the meetings are conducted almost solely in their behalf. This criticism is harsh, and is not borne out by the facts. Of the twenty-four presidents of the society, only eight have had college connections, while sixteen have been extra-collegiate. Does this look as though the society is a mere college advertising medium ?

The fact is, the willing workers from every quarter are welcome, and bureau work is open to every member. The bureau appointments are not in any sense exclusive, but simply form a nidus for systematic work, and the chairman would be only too glad to receive volunteer workers in the various departments.

DUTY OF MEMBERS.

At the risk of being charged with perpetrating a pun, though disclaiming any such intention, I wish to emphasize the opinion that the first duty of a member of this society is to pay his dues, and pay them in advance, as provided in the By-Laws. A candi-

date for admission subscribes to the belief in similia; he should be compelled to subscribe his belief in the doctrine contained in the text, "Owe no man anything."

It is not an agreeable duty for the president of this society to make the subject of the payment of dues a feature of his address. It is done with the view of relieving my successors from such necessity, and I hope to do it once for all. I wish to say that the man who allows his name to remain on the roll, and to appear in the Transactions annually in the list of members in good standing, and then refuses to pay his dues, is not an honest man. If I were a householder in that man's town, I should exact security for his office-rent before renting to him, and would not be disappointed if he allowed his surety to pay it for him.

Does this language seem strong? None knows better than the treasurer and secretary how mild it actually is. It is far from pleasant for your officers to advance the money to carry on your affairs, and when calling upon the delinquents for what they owe to be practically told to go to that place where paper money cannot exist and coin is presumably too hot to be comfortably handled.

That members neglect to pay their dues is not the fault of either the secretary or treasurer. Reminders, both direct and indirect, have not been infrequent, and yet the treasury for 1888-9 is bankrupt.

It is by no means certain that the society did a wise act in reducing the annual dues to two dollars, though the motive was correct. With a paying membership of two hundred, a revenue of four hundred dollars would pay all expenses and leave a surplus. One hundred and thirty-three members at three dollars will do the same. As long as we intend to publish our Transactions in good form, I believe our expenses can be best met with the annual dues at three dollars. I shall leave it with your committee to decide whether we would better provide for a surplus or a deficit.

NEEDS FOR GROWTH.

There are certain needs for growth in efficiency which the members should heed if this society is to reflect the strength of the

profession. Among these, the record of cases and post-mortem examinations is of great importance. Much of value to the profession is lost through defective memory and the absence of record. Much that would be corrective of diagnosis is lost through indifference to holding post-mortem examinations. The revelation of the autopsy outweighs the speculations of the diagnostician, and in turn makes his speculations of much more worth.

Again, the public report of failures and mistakes, their causes and results, would be of inestimable benefit. It is an easy matter to report successes, but the interpretation of them is not always the most profitable. There is a certain element of doubt in the testimony establishing a success which a failure or mistake does not possess.

A failure is quite likely to be known by some one else than him who makes it, and peace of mind is not always secured by the flattering hope that we alone are cognizant of our mistakes.

Tell of the herniæ you have hesitated to operate upon until the Angel of Death has removed the patient beyond the surgeon's neglect. Tell of the ear-drums you have failed to puncture in time—of the babies left to turn themselves, and of dislocated joints to jump into place by some autogenetic hocus-pocus.

Verifications of remedies should find a medium of record and distribution in the meetings and publications of the society. Our materia medica is by no means so perfect that there is no further need of improvement, nor so brief that we cannot afford to drop all that is proven worthless. The verification of a single well-marked symptom may be of more value than an elaborate paper on the probable cause of some disease. Let those who may not have time to prepare formal papers for the society take time to bring, or send, verifications each year; the publication committee will see that their work is acknowledged.

MEDICAL LEGISLATION.

This society should adopt some definite policy in regard to State legislation. The avowed purpose of improving the status of the medical practitioner will meet with the approval of all schools.

Medicine has suffered too much at the hands of incompetent practitioners to require any argument for the need of reform and protection. The fair-minded public will not quietly look on the overthrow or embarrassment of any system of medicine if it is appealed to in the proper way and through the proper channels. Class legislation has justly been unpopular in the United States, where the rights of every one are presumably conserved.

The Pennsylvania Legislature has recently been the theater of a conflict between the "old" and the "new" schools, in which an attempt, on the part of the allopathic physicians, to found a License Trust, was defeated by the expressive vote of 132 to 39.

In New York State, where for years separate examining boards for each school of medicine have existed, there is an attempt being made to create a single board for the entire medical profession—consisting of five allopathic physicians, three homœopathic physicians, and one eclectic physician. Now the composition of a conglomerate board, proportioned with some regard to the relative numbers of the three schools, and a provision for the maintenance of the incognito of each applicant, seems to be a fair proposition, but it is at best but a whited sepulcher, with a predilection for concealing homœopathic bones. This provision strikes at the principle of self-government. The State, having incorporated the various colleges as separate bodies, might well presume that they are capable of managing their own affairs, and that the natural competition among the various institutions will insure the most careful preparation of their students. That this is a natural presumption, the various steps toward the advancement of medical education taken by the American Institute of Homœopathy will attest.

While it is by no means certain that any examining board will best protect the public from incompetent practitioners, I think it is quite certain that separate boards will best protect the physicians themselves. It seems to me that the scrutiny of the State can be secured by other methods than by the institution of a board of examiners, but if this method is insisted upon this organization should instruct its legislative committee in behalf of separate boards.

The only single board which could be beyond the suspicion of a bias should be composed of equal numbers of allopathic, homœopathic and eclectic physicians, and they should confine the examination to anatomy, physiology, pathology, histology, chemistry, surgery, midwifery, and posology—not one word of materia medica or therapeutics. Men who could stand a proper examination in those branches would not be likely to damage an over-confiding public, and that public could be safely left to choose whether it would have its agues cured by quinine or a dilution of common salt.

The society should provide itself with an alert and effective legislative committee; a committee composed of working material and appointed from no geographical considerations; a committee whose duty shall be, if indeed not to originate legislation, at least to protect our interests from adverse legislation. The expenses of this committee should come out of the funds of the society, and not fall upon, as heretofore, the individual members of the committee. It is as necessary an expense as the society printing, and the time might come when it will be productive of infinitely more good.

Let us make peaceful preparation for warful exigencies.

The subject of medical education is one that deeply affects every physician. Scarcely a society meeting is held without something being said, or resolved, upon this topic. While all agree that the very best equipped graduate furnished by our colleges is only fairly prepared for the duties of his calling, and that the poorest graduates are scarcely prepared at all, it is only of late years that efficient steps have been taken to improve the quality of college work. The graded course has been assiduously advertised and as assiduously nullified by the college. Three times one course of lectures is *not* the same as one time three courses of lectures, and the student who is compelled to listen three times to the same set of lectures is not honestly dealt with. The freshman, middle and senior classes should be separately and progressively instructed. The American Institute has done well to require four years of study and three courses of lectures of not less than six months each before it will recognize the diploma of any college, but it will

do better when it has secured for the student an actual graded course after the example of the literary institutions of learning. What would we think of the four classes of these institutions going over the same branch of mathematics year after year? They might indeed be proficient in that one branch, but how ignorant of the others! One term is given to Algebra, another to Geometry, another to the Calculus; Mechanics and Astronomy, as applied mathematics, follow, and in the end the whole subject has been surveyed and grasped according to the capacity of each individual mind. Is our medicine taught so? And shall we ever have the most efficient teaching until it is so taught?

The lecture system of teaching, even though combined with a daily quiz, will not compare with the recitation system in grounding the student in the fundamental principles of medical science. It is true that great men are not made by rule, and would be great in spite of deficient instruction, but the average medical student must have his greatness not only thrust upon him, but pounded into him systematically, or he will fall short of it altogether.

The American Institute should go one step further and require the colleges to teach the Organon as they teach the Anatomy. Without the truths of the Organon, there can be no comprehension, no correct practice of Homœopathy. One might as well try to learn Mohammedanism without the Koran, or Christianity without the New Testament, as Homœopathy without the Organon. It scarcely meets the requirements to relegate this instruction to the professor of theory and practice, or trust to the enthusiasm of the professor of materia medica to elaborate and emphasize the teaching of this book. It is worthy the dignity of a special chair, a chair which shall be filled during the regular term and not deferred to the post-graduate course. Is it not, most decidedly, a case of placing the vehicle before the motor, when men are graduated in Homœopathy, and then invited to attend a post-graduate term to be instructed in the Organon, the book which teaches us the fundamental truths of the system?

It is quite possible that the defection in the Monroe County Homœopathic Medical Society, in New York, is largely due to in-

efficient instruction in the groundwork of Homœopathy. When a portion of a society organized upon the basis of a common belief is led to withdraw from the society, owing to a preponderance of action which controverts that belief, it looks as though some were believing too much or others too little. Is it not just possible that we are having here an exhibition of the conflict between a myopic fanaticism and a pernicious liberality?—an exhibition similar to that among Christians where we see the dipped-or-damned fanaticism of one sect opposed to the free-for-all, go-as-you-please liberality of another, while professing a common belief in the same Saviour. Members of the society, my address is before you, another one added to the many gone before, forming a galaxy of good wishes for the prosperity and perpetuity of the Homœopathic Medical Society of the State of Ohio.



BUREAU OF REGISTRATION, LEGISLATION AND STATISTICS.

C. C. WHITE, M. D., CHAIRMAN, Columbus.

**"THE SALARIES OF MEDICAL EMPLOYÉS OF OHIO
CHARITABLE INSTITUTIONS,"**

BY

H. E. BEEBE, M. D., Sidney.

SALARIES OF MEDICAL EMPLOYES OF OHIO CHARITABLE INSTITUTIONS.

By H. E. BEEBE, M. D., Sidney.

I was led to prepare a few remarks, on the subject which I shall read, by our futile efforts at attempting to secure control of the Toledo Insane Asylum, as well as my observations in the treatment of the insane, more especially in the State of Ohio.

In the introductory to the last Annual Report of the Board of State Charities, dated November 15th, 1888, we find the following : "Marked progress has been made during the year ; every effort has been made by officials and employes to advance the interest and promote the welfare of the State institutions and their inmates. Increased efficiency, economy and good management, we believe, characterize all the public institutions." Now, I believe every word of this, but I do also believe the medical management might be better if salaries sufficient were paid the medical officials to secure special ability for these positions. The compensation paid our State officials, from the chief magistrate down, as a rule, is entirely too little, but in no instance do I think it as niggardly as in the salaries paid to our medical employes. We justly boast of Ohio's charitable institutions ; we are not ashamed of their good management, except it be the medical department, and it is indeed remarkable that we find in these institutions the medical ability we occasionally do have. We will consider more particularly our insane asylums, for it is to these institutions the subject first applies. The inmates who are so unfortunate should have, and I believe do have, the best care the State affords, except medical at-

tention, and that is left generally, if any medical care, to medical attendants, the salary being too low to command special ability in this line of work. The medical superintendent, who is appointed, many times, for his political rather than medical ability, receives the munificent sum of twelve hundred dollars a year, his board and washing. He has all he can do to superintend the institution, say nothing of the medical management of it, even if he has the ability. Because he has executive ability does not indicate that he also possesses medical ability. The medical care of the inmates is left to the attendants, who receive the immense amount of eight hundred dollars a year, board and washing, and from my limited observation this is often more than he is worth. These salaries do not command men of marked ability, and certainly special skill is often needed for this class of inmates probably more than any other branch of medical practice. But no, they are filled by retired practitioners or young men who in time may and do often make their mark in this specialty, and then if they do, other fields are open for them, and the field is not in Ohio. Other States paying larger salaries, seeing their good works, soon secure them. These places should seek the men, not the men the places. Ability seldom goes begging. In one respect, we are very charitable in Ohio with this specialty. I believe it is about the only specialty where the State educates the physician for a specialty and pays him a small compensation for this privilege. Now, I see no reason why, in this great State of Ohio, the insane are not entitled to as good medical attention as other States, but we will never have it until better salaries are paid our medical officials in these institutions. Now, some one says, what are you going to do about it? It is much easier to criticize and find fault than to remedy defects. I see but little we can do except to agitate this question with the press, or legislators, asylum trustees and board of State charities. Many of these officials receive no compensation; pay them first and lead them to see the importance of the question. We all have an influence, and by individually bringing this question forward we may be able to do some good, and thereby secure justice to Ohio's medical officials. Then can Ohio keep the talent in this field that other States are securing. Then can our public asylums do as effi-

cient work as our private asylums are doing. But this will not be while Ohio pays her medical officials but one-third what other States pay. Economy is extravagance in this case, and I trust that ere long our Board of State Charities will so see it.

DISCUSSION.

DR. D. H. BECKWITH, (Cleveland.)—I think the paper is certainly deserving of some little notice. I think the men are paid enough. Politicians are the men that are going to take those positions, and until a man becomes a politician he can never succeed in securing the place. No man was ever known to be appointed to this office—within the gift of Ohio—unless he was a politician. The experience which the young men get there is worth more to them than all the salaries. They will get training that is worth something; and when they eventually go into the community to practice they are educated and disciplined. The Governor of Michigan gets one thousand dollars a year as his salary; and still there are lots of applications for that position. There is no man ahead of Dr. Strong in treating nervous diseases, and his salary is the enormous sum of \$1,200. He gets his board and his horse; his family get a house and expenses paid, so that it makes about \$1,200 a year almost clear. The essayist did not once refer to the honors that public officials get; every man is after honor, and if he can secure a position as assistant to some public official, he has secured something that will carry him through life. Your humble servant works for \$5 a day for the sake of honor, leaving a business of thirty-five or forty dollars to get it.

DR. BEEBE—We are all aware that Dr. Beckwith was elected to the position he occupies for his political rather than for his professional ability. (Laughter.)

O. A. PALMER, M. D., (Warren.)—Having had some experience with the insane, I want to say a word in defense of their treatment. If I was so unfortunate as to become insane, or if any of

my friends should be overtaken by that calamity, I never want myself or them sent to an insane asylum with inexperienced men in charge; nor to an asylum treated allopathically; their mode of treatment is disgusting. The idea is that they must give something to quiet the patient, to deaden instead of correcting the wrong impression under which the patient is laboring. If there is any place on earth where ability is needed, it is in an insane asylum. Those who have studied the subject will, I think, get the same impression with myself that insanity is gradually on the increase; I know this to be a fact in my county. We have been obliged to build a place especially for these incurables, and our county house for the insane is always full. Shall we demand more superior treatment, or shall we build bigger buildings? Shall we use the unfortunates like dogs, or like human beings? Hence, I am enthusiastically in favor of placing the best men the profession has got in charge of these institutions, regardless of expense. I want no young man of inexperience. We must have skilled men. I have had it come right home to me in the last year, and I think we should not consider this paper and its recommendations lightly.

DR. CLAYPOOL—I feel that the discussion is not taking quite the course that the paper was intended to bring out. I believe the paper is in the right line of thought. It is not a question of what we prefer in regard to treatment; but it is on the broad ground of requiring the best and most experienced men for these places. I feel that more can be done toward accomplishing this result by trying to secure a change in the appointive plan, and in the salaries, so that our best men in all schools will strive for the places. At the present day, the asylums of Ohio are put under men who are willing to work, as Dr. Beckwith says, for the honor, instead of being by those who want to use their abilities for what they are entitled to in adequate remuneration. I also take exception to the statement made that these appointees get all they deserve; Drs. Beckwith and Clemmer do not get the half they deserve; they certainly earn more than five dollars a day. If we want to get the best men, we must pay them something for what their time is worth.

BUREAU OF SANITARY SCIENCE.

D. H. BECKWITH, M. D., CHAIRMAN *pro tem.*, Cleveland.

J. W. CLEMMER, M. D., Columbus.

D. H. BECKWITH, M. D., Cleveland.

R. D. TIPPLE, M. D., Toledo.

J. C. FAHNESTOCK, M. D., Piqua.

E. R. EGGLESTON, M. D., Mt. Vernon.

HEATING AND VENTILATING OF PUBLIC BUILDINGS,

And a New Method of Sewage Disposal.

By J. W. CLEMMER, M. D., Columbus, Ohio.

The hygiene of public buildings is defective. This applies especially to heating and ventilation. In any city one can observe a lack of scientific exactness in this matter. Natural law is ignored. Health considerations are lost in the æsthetic effect of the architect or in the stupidity of the engineer. Many halls, theatres, churches, court houses and other public buildings are heated without any means of ventilation excepting that by opening the windows and doors. Under pretense of ventilating others, the architect has made vents high up in the wall or ceiling, presumably for the escape of foul air. The result is, the pure, warm air escapes by these means, while the cold, foul air, being of greater specific gravity, descends to the floor. Let it be fixed in mind and in practice that air-ducts intended for the escape of cold, foul air, if not placed near the floor, will serve the interests of the coal dealer alone, and rob the innocent occupant of both health and comfort.

Another mistake you will find, as I have, in visiting public buildings, that foul-air registers lead to conduits that return the cold, foul air to the furnace to be re-heated and returned again to the room. It is observed too, that cold, foul-air flues in the same room with grate fires are incompatible. By causing draft in the grate-flue the air pressure in the foul-air ducts is lessened and its contents

are returned to the room, thus the order of air circulation is reversed. It is also found that the cold air inlet is too small, or made to pass the air over coal, rubbish and dust heaps, thus fouling it before it reaches the heaters. All sorts of failure may be observed. In very cold weather there is often an inadequate amount of heat furnished. Schools and other assemblies have to be dismissed or punished with a cold temperature. More frequently there is a lack of ventilation. In fact, as a rule, the heating and ventilation of public buildings are horrible. Who is responsible? Surely not the school-girl or the church-member or the theatre-goer. The people are not responsible. The architect, the engineer and the physician are responsible. The mechanical artisan plumes himself upon the elegance and beauty of his work. He pleases the owner and the public with a structure whose exterior is the expression of perfect symmetry and form, whose interior bespeaks the embellishment of art and refinement, but, alas! whose sanitary effect is lost in neglect, discomfort and impaired health.

The physician, like the Supreme Judge, renders final decision. The sanitary arrangement of buildings require his approval. It is his business to decide in matters of health, and it becomes his duty to aid the architect, plumber, builder and engineer to construct sanitary houses.

The union of scientific fact to mechanical art is the basis upon which rests the hygiene of public buildings. The physiology of respiration is no less a factor in a system of heating and ventilation than the construction of flues or the payment of costs. Indeed, a knowledge of the requirements of physiological existence is the prime factor whose importance outranks the blandishments of art. A knowledge of the atmosphere and of pneumatic law should be built in the heating and ventilating apparatus. The behavior of the atmosphere under varying conditions of temperature, moisture, contamination, high winds and local environments must be understood and respected by the engineer. A perfect system stands as an index to both scientific knowledge and mechanical skill. Every surgical instrument expresses this fact. Living rooms, like the instrument, in the hands of art should be fashioned at the dictation

of science. In this way school-rooms, for instance, would be so constructed and ventilated that the normal proportion of carbonic acid in the atmosphere (4 parts in 10,000) would not, during occupancy, reach the danger line of 7 or 8 in 10,000. To keep within safe limits it is found upon good authority and experiment that one man requires 40 cubic feet of fresh air every minute. This requirement presumes continuous habitation without opportunity for frequent airings, as in the case of public buildings. Dr. Billings says: "For schools the allowance of 25 to 30 cubic feet per minute and head will answer all needful purposes." With such an amount of air to be supplied so rapidly it is evident that the size of the room and the number of occupants become important considerations. Unfortunately authorities differ as to the amount of air space that should be allowed to each occupant of a room. An average of six authorities places the figure at 240 cubic feet. In order that a school-room may not be too large for lighting, disciplining and teaching, the number of pupils should not exceed 55 or 60.

From these general, hasty considerations, ventilation begins to assert its claims and to formulate the conditions upon which it is to be secured. Slowly a definition of the subject unfolds itself. Ventilation may be defined to be a constant admission of pure air to a room with an equalizing temperature, the difference in temperature not to exceed 10 degrees F. in different parts of the room, to displace the foul air which is as constantly exhausted from the building without appreciable draft, yet sufficiently rapid to renew all the air in the room in from 10 to 30 minutes, according to the size of the air space and the number of occupants.

In public buildings, grates and stoves, or any other means of furnishing heat by direct radiation alone, must be abandoned, because there is not an equalization of temperature in all parts of the room. The supply of heat is irregular and inadequate. Besides, these means oppose the principles of perfect ventilation. Furnaces of various kinds and in endless variety, that pall upon the market, bespeak their own opposition and confusion, in principle and practice. Some afford no ventilation, except by opening windows;

others are used with an insufficient supply of pure air; others do not admit fresh air directly from the outside, but depend upon cellar air, which is more or less contaminated by fouling sources.

In the introduction of furnaces, many are adjusted according to a stereotyped method of conduits, flues and pipes, regardless of the size, number or elevation of the rooms to be heated. In many, the requirements of physiological living and the necessity of renewed air at a certain temperature are conditions not supplied.

On account of a lack of sufficient ventilation, emanations from the body, and, in a mixed audience, the malodorous compound gas of neglected "catarrh," tuberculous and other diseases, bad whisky and decayed teeth, hang about public rooms as gods of evil to mock the intelligence of the jurist, the divine and the teacher, and to indicate injured innocence in acts of commission by culpable architects and "furnace men," and the sins of omission by the sanitarian.

As an index to the worth of heating and ventilating apparatus in general use, I quote the language of Dr. R. Harvey Reed, of Mansfield, from a reported investigation of the school buildings and churches of that city. These are all heated by furnaces of various kinds, excepting one heated by steam. He says: "I have examined fifteen churches and nine school houses, every one of which I visited in person; from cellar to garret, and examined carefully their systems of heating and ventilating, and when necessary actually tested the drafts and currents of air by proper methods, to satisfy myself of their exact course; and whilst a few of them are fair, I have failed to find a single one complete, and the majority of them are simply horrible."

These observations corroborate those made with respect to some of the public buildings in Columbus. My examinations and information produce the conviction that the ordinary methods of heating and ventilating public buildings are very imperfect; that the majority of apparatus, both furnace and steam, in present use, fail to reach a standard of perfection required by both health and comfort.

Steam heating for large buildings is popular. With a low press-

ure and the direct-indirect radiation, this mode of warming is satisfactory. Still, steam apparatus has an element of danger; it is expensive and requires careful engineering to insure satisfaction. The cost for repairs is considerable. For the purpose of perfect ventilation, exhaust fans must be attached to insure success. The Government building at Columbus, the School of Technology in Boston, and many other structures are thus heated and properly ventilated.

What is wanted, especially in meeting the demands of a rapidly increasing school life, is an apparatus that will heat the largest building in the coldest weather, and guarantee perfect ventilation at a moderate cost. It must supply the conditions already indicated: First, regulation and uniformity of temperature throughout the room and building; second, abundance of pure air for every person; and third, prompt removal of foul air from each room.

The Smead system of heating and ventilation supplies these conditions and meets all requirements. The pure air supply is brought in through a basement window, always open, to the cold air room, always clean, in which is located the heating apparatus or air warmers. This furnace differs from all others in being constructed upon principles found in the engine boiler, which presents the largest amount of heated surface. The heat generated in the fire-box, together with the flame, smoke and other heated products of combustion, instead of passing more or less directly to the smoke-flue, as in other furnaces, is held as long as possible. The heat, flame, etc., are made to return to the front of the air warmer (furnace) through twelve iron tubes immediately above the fire-box; thence they are again returned to the rear, through a large flue to the smoke-stack. Economy of fuel finds explanation in the character of the warmer, in presenting a large amount of fire-surface, which means surface with fire inside. The whole is encased in masonry-work with cold-air inlets at the bottom, and, at the top, the hot-air chambers are mounted with brick flues to conduct the pure warm air to the rooms above through registers. Above each register is the "regulator," which is a ratchet crank moving over a

dial marked "warm air" and "cold air;" when the crank is moved to the right, pure cold air from the fresh-air room in the basement is admitted to the room; when turned to the left, warm air is admitted, and from the same source, only it is made to pass over the tubular heaters. The regulation of temperature to any degree is by means of a valve at the bottom of the air flue near the heater, so arranged as to give vent to either warm air or cold air, and by means of a chain put in command at the regulator. It is possible to regulate the temperature of the air admitted to the room, but it is impossible to cut off the circulation of pure air into the room or to impede its ventilation. Despite the carelessness or pre-occupation of the teacher, the supply of pure air is constant and irresistible. The foul air is taken out through a number of registers (6 inches by 3 or 4 feet) located around the room in the base-board. The sum of the vent areas is more than that of the warm air register, a requisition often disregarded.

Vent shafts at convenient points in relation to the rooms are erected large enough to carry on the circulation of the buildings and tall enough to extend beyond the cone of the roof in order to avoid temporary embarrassment to the out-flow during high winds. At the base of each of these shafts or stacks is placed a small furnace, the "stack heater," to secure draft.

It becomes plain, now, to see how the foul air is to find a vent-draft. After being drawn out at the base-boards the foul but partially warmed air is made to pass under the floor and to traverse this enclosed space between the floor and the ceiling in all directions by means of furred-strips over the joist. In its passage, the floor, and feet of the occupants are kept warm, thus meeting the injunction of professional advice, "Keep your feet dry and warm." After the escaping air serves such a good purpose, it is conducted to one corner of the room, where it enters the vent-shaft. This circulation beginning with the great ocean of atmospheric air through cold air room, over warmers into flues, into rooms and halls, beneath floors and out of the stack, back to space, is like the great circulation of waters in nature, beginning with absorption from the ocean, followed by saturation, condensation, cloud forma-

tion, and precipitation in the endless round of rain, river and its return to old ocean.

The Smead system of dry closets is a newly discovered star in the firmament of sanitary science. It is not a necessary part of the Smead system of heating and ventilation. Each may be adjusted to a building without the other. Together they complement each other. When dry closets are added, the course of the foul air on its way out of the building is changed. The exhaust-air from every room in the building is taken downward at convenient points (under the floor), all sources being drawn to the foul-air gathering room (in the basement), which has placed at one end a trench over which the closet seats are placed. At the other end of the trench or vault is erected the vent-shaft or foul-air stack. The closet trench is nothing but a horizontal section of the shaft. At the base of the stack, remember, is placed the stack-heater. The vault is about four feet wide and four feet deep, and as long as seating capacity may require. It is lined with brick and the seats with sheet-iron, making the vault fire-proof. The floor of the vault rests upon iron cross bars. Beneath this is an interspace of a few inches overlying a bed of gravel. The brick floor upon which the excreta are deposited, as well as the gravelly sub-strata, will absorb an excess of liquids pending its removal by the currents of air through and under the vault on its way to the stack from the foul air room. A urinal is also attached with the same relation to the vault as the seats. The floor near the urinal and seats is made of perforated iron to provide for the inward draft.

The two systems are outlined. With this picture of a building that is intended to breathe, to do its own plumbing and drainage, to dispense with the services of the "night-cart" and all its associate evils, to place the hygiene of public buildings so far in advance of present methods that it would appear to stand matchless in its approach to Utopian perfection, the goddess Hygie is consulted to learn if these things are true in practice as in tautology. These were the thoughts that induced me to investigate with a determination to either oppose or attack according to conviction. This system is being introduced into many public buildings throughout the

country, and it behooves us as physicians to investigate its sanitary effect, especially on school life.

Time will not permit of details. The history and literature of the subject bristle with reports of investigating committees, chemists and sanitarians. I will glean a few statements from these sources and from personal examinations and tests. Besides, you are invited to investigate for yourself. You will find that 2,000 cubic feet of air, every hour, is afforded every occupant; that rooms are kept at a uniform temperature in the coldest weather; that the temperature of the room at floor and ceiling does not vary more than 6 to 8 degrees; that the air is exchanged every 10 to 20 minutes; that the exhaust at the top of the vent-stack, as determined by the air meter, equals the amount of pure air at the registers. In heating the room, the thermometer will show, under proper conditions, an increase of temperature of two degrees per minute, indicating that the work of the warmers is rapid and very satisfactory on a cold morning. Again, oil of peppermint scattered in the fresh air room in two minutes was detected in the foul air gathering room, showing how rapidly air makes a complete circuit of the building.

One of the School Board Committee (East Saginaw, Mich.), reported: "By using a delicately adjusted air meter we observed the supply of fresh, warm air was sufficient to fill the room every 12 minutes. By applying the same means to the ventilating stacks in the base the outflow of vitiated air corresponded in quantity to the supply of fresh air. The same test applied to the closet-vaults showed 350,000 cubic feet to pass every hour, which at 80 per cent. relative humidity is capable of taking up about five gallons of liquid matter every hour." Five-sixths of the excreta are liquid constituents. Upon scientific principles it is shown that the dry closet will do all that is claimed for it. But it is not necessary to depend upon theory when practice demonstrates the fact. My visits to the Columbus schools corroborated the statements of others. In each case the closet room was absolutely odorless. Upon raising a seat-lid a strong down current was found, sufficient to draw out a lighted match and tallow candle. The faecal matter

was thoroughly dry. It was impossible to get any odor even at the seat. The vaults are cleaned by combustion *in situ*. The residue of a winter's dejecta can be burned easily, leaving only the ashes to be swept out by the janitor.

The Columbus School Board are highly pleased with the system, and are giving it place in all new buildings and in some of the old. In their last report reference to expense for coal is made:

“Average tons to room, steam, 10.
Average tons to room, Smead, 6.”

In ten years, seven buildings, heated by steam, cost nearly \$11,000 for repairs, while the Smead guarantees no cost for repairs for first ten years.

Upon searching, I found no trouble or complaint with the heating and ventilating apparatus. This seems to be faultless. The dry closet system in Cleveland, in the Central High School building, did not work well for a time, until certain corrections were made in a faulty adjustment of the system.

The gullibility of the people and their ignorance of technical matters paved the way to a newspaper sensation, causing public excitement and remonstrance, under the pressure of which the Board of Health issued an edict of extermination, which at this writing is trembling in the balance of execution, before the Board of Education. In my judgment, this Sanitary Board, in condemning the dry closet, is making a record that will bring reproach to itself in the near future.

The *Annals of Hygiene*, the official organ of the State Board of Health of Pennsylvania, in its April number of the current year, contained an article describing the dry closet system. In the May number is found an editorial upon the same subject. Extracts only can be given. The article in the April number created comment. Among others, an Ohio physician writes “because of a newspaper publication condemning the system which he desires to have verified or disproven.” It is claimed that the gases of decomposition from the vent stack cause disease. The editor says, “before deciding to describe this system in our pages we made a most critical examination of its working qualities, and then set to work to try to

find fault therewith." He goes on to explode the theory of contamination. He wrote to physicians in localities of the dry-closets, and says: "In no instance does the experience of scientific men give a shadow of support to this unfounded newspaper representation." One of the editor's correspondents reports that the closets were introduced into all the school buildings of his city, and says: "I have examined them repeatedly and never found one that allowed the faintest odor to get out into the building. This is the only system of inside closets with such a record." The editor gives no names, and, after disclaiming any interest outside the interest of humanity, says of the dry-closet system: "It is, we believe, a great step in sanitary progress and we are anxious to give it all the publicity possible."

Dr. H. J. Herrick, of Cleveland, a prominent physician and sanitarian, is on record favoring the dry-closet system. He regards it "far superior to any water-closet." "The drying-out process prevents the fermentation or putrefactive changes which would induce the generation of noxious gases." Again he says: "The atmosphere has a very much greater capacity for destroying and diffusing noxious germs or noxious gases than water."

The objection urged that the surrounding atmosphere is fouled by ejections of noxious gases in the dry-closet system is empty cavil. Grant it is an evil. The same system of ventilating sewers, house drains and soil-pipes obtains in the sewerage system. The soil-pipe is extended through the roof for the purpose of ventilation. The foulest and most dangerous section of the sewerage system is in the dwelling. Sewer gas under air pressure in the sewer will bubble up through the trap water. Traps may be syphoned. Ventilation is often defective, plumbing may be bad. In order to avoid sewer gas by dilution and diffusion with the atmosphere, the whole sewer is ventilated. Sewer gas is taken out at every gutter-drop and man-hole along the trunk sewer, and out of every soil-pipe in every plumbed house, thus creating thousands of short vent-stacks in every city to discharge noxious gases and bacteria. No one is foolish enough to attempt a sensation in which is pictured bacteria and death-germs, as large as bats, flowing through these

vents to decimate an unsuspecting populace. Why should the dry-closet be attacked? 350,000 cubic feet of air passing through its vault every hour insures perfect ventilation as compared to the dangerous imperfections of plumbing. Besides, the dry-closet does not tolerate putrefaction and decomposition of organic matter in foul, slimy, damp places as culture beds for disease germs. The dessication of excreta, with the prompt removal of its liquid portions into regions of atmospheric dilution, is nature's own method. The chemistry of the sun and vegetation in the great laboratory of nature provides for the disposal of noxious gases. Oxygen is the scavenger of nature whose products, ammonia and carbonic acid, are appropriated by plant life.

DISCUSSION.

DR. OWENS.—The only objection I have to urge to that paper is, that it is an advertisement of the Smead system, which has been condemned in some of our cities. One school-house in Cincinnati adopted it, and has since gone back on it. I am perfectly well aware of the advantages of the dry system, and while I heartily approve of it in the main, I question several of the points in regard to the amount of fresh air necessary for good, healthy ventilation of the room. I think the claim is too high; that people live just as well on less than one-fourth of the amount that is deemed necessary by some of our sanitarians, for each individual in the room, in an hour or in a day. It is not necessarily impure, unless the parties are in very impure state themselves; and it is utterly impossible to have a fresh supply in any room, every minute, or every five minutes; and it is a fact that we are respiring continually a very large amount of air already respired. About the method of heating. I question the Smead system as to whether it is as valuable, all things considered, as the indirect steam-heating method, using the indirect method of heating by steam. In point of economy, it is certainly very far short of the steam method; and as to the purity of the atmos-

there, it can be made just as pure—in fact, can be made purer than can be done by the Smead system. In adopting a method of ventilation for your fuel, carry the pipe or chimney above the roof of your house, or surrounding houses, ten or fifteen, or even twenty feet, and you will get a purer air than you can get from the gutter; and that air can be made to traverse a column or pipe to the bottom of your cellar if you like, or basement, and supply your pipes heated by steam in a closed chamber, and from this the heated fresh air is radiated into your room, and will keep it perfectly well regulated as to temperature, with a purer atmospheric intake, without appropriating any of the gutter air (which is the objection to all methods that are now in vogue, except this one which I now suggest), because the air is taken from the street in all of them; the result is, that you have all the impurities of the lower strata of the atmosphere, of the gutters, and perhaps of your cellars, where many of the intakes are placed; whereas, if you can obtain the air from the top of your building, or above the building, you can get pure air if there is any. In a large city it is practically impossible to get pure air; but it is less impossible to get it from the tops of the buildings than it is from the cellars, or from the gutters.

DR. CLAYPOOL.—The Smead system in Toledo is a very popular system. It is in all the schools and all public buildings, and as yet I have heard no complaint. Dr. Owens' objection that it is an advertisement of a particular firm is a valid one. There is one feature in regard to taking in cold air that I haven't heard discussed, or stress laid upon, and that is the ordinary grate or opening for the cold air chamber. As ordinarily constructed, this grate takes the air in with all the dust that goes with it. In the Detroit Hospital in their intake of cold air they have screens which are covered with bolting cloth, and they have to change that once or twice a day, because of the amount of noxious dust and irritating particles of impurities that would otherwise be thrown into a room and into the breathing.

DR. SANDERS.—As to the system of ventilation by what is

denominated as the Smead system I have no criticism ; but as to the dry closet I think that matter should be still further considered. In our city it has had a very exhaustive trial, and has been condemned by the Board of Education. As one of the physicians of the city, I have some knowledge, having had some of the victims of the Smead system under my care. The general sentiment of the medical profession of Cleveland is, that so far as any comparison may be instituted with what is called the water-closet system, the Smead system is a failure. Now, in towns where the water supply is deficient, or scant, the Smead system may do ; but where water is inexhaustible in quantity, beyond all question so far as the sanitary condition of our city is concerned, water is undoubtedly the best. They are very much pleased with it in Oberlin, for there they have no water. And I think you will find where the water supply is deficient it is undoubtedly superior ; but as compared with systems where there is a sewer system, and inexhaustible water, as in the city of Cleveland, there is no comparison between the two.

DR. GANN.—About two years ago the Smead system was put into the new Methodist church in our place, and while a small town, and with the water supply perhaps not so good as in Cleveland, still we have good water, and the Smead system there is a decided success. A comparison of the present condition of the church with other places supplied with other systems, is decidedly in favor of the Smead system. We make but very little use of the water-closet system, and for that reason are not good judges of the demerits as mentioned by Prof. Sanders. As a heating system it is a decided success. Our Methodist church is capable of being heated in decidedly the least time of any church in the town ; and it is a popular church on account of the purity of the air.

DR. BEEBE.—I endorse the Smead system. I have investigated the subject right thoroughly. I was one of a committee to investigate it for the purpose of placing it in a recently built school house ;

and we have finally placed it in all our school buildings. It is certainly superior to anything we have ever had, not only as to the heating, but also the dry-closet as well.

DR. EDGAR (Zanesville).—Some years ago I was investigating the subject of ventilation, and corresponded with some eight or ten parties throughout the state, and before introducing the Smead system they had already used the water-closet. I have now used the Smead system for three years in my private house. I am heating twelve rooms. We can heat more thoroughly, more evenly, more satisfactorily than ever we could do before with grates or stoves, and with a good deal less of expense and with but one fire. The boy takes care of it down in the cellar, and the women do not have a coal scuttle to lift or anything of the kind. You can go all over the house at any time without getting chilled.

DR. HOUSE.—I can say a word in favor of the heating system. My experience as member of the school board warrants me in that. We built a new building and put in the Smead system. That was in Tecumseh, Michigan. We also tried the dry-closet system. This building had all the rooms on the ground floor, for primary departments largely, and had a capacity of about two hundred pupils. We liked the heating part of it so well that we went to work the following year and turned out the heating apparatus that we had in our Central building and substituted the other. We made arrangements for putting in a dry-closet system, but after examining the other very carefully and looking it over we didn't feel justified in using it, and it has never been used. We found times when we could detect odors even in the school rooms of that small building. The heating was perfect, but the dry-closet was not entirely satisfactory with us.

DR. E. H. PRATT (Chicago).—I have nothing to do with school boards, but I have had to do with one family that had this Smead

system in their house, and I examined that house in that way to ascertain its arrangements, and found the difficulty was wholly in controlling the direction of the air. It might be all right in the Winter, but in the Summer time the air current is liable to be reversed. This family was prostrated by typhoid fever—one after the other came down, and it nearly cost several children their lives. The family moved from the house and went to Europe. The house was thoroughly ventilated and cleaned out and rented out, and has since burned down. The problem is to make your air current steadily out of the house so that the suction cannot make the direction of the air in the wrong way.

DR. A. M. MONROE (Louisville).—I know very little about ventilation in general, and very little about our Louisville system; but I do think that the acme in that particular has not yet been reached. It seems to me that physicians ought to be more particular in the matter of ventilation, but they are hampered by their patients being rarely willing to undergo any very great expense.

DR. BECKWITH.—Some three years ago, I visited Toledo and made a very thorough investigation of the Smead system in the five or six schools in which it was applied, and found the ventilation most perfect; I found it worked remarkably well. I found one building that was extremely warm, and I found also that the teacher was suffering with a severe cold, all because the ventilation was not properly arranged. I am inclined to think that no school room can be warmed as evenly as by the Smead system, while the ventilation seems almost perfect. In regard to the dry closet system, my friend, Dr. Sanders, has created a good deal of a sensation. A committee was appointed by the Board of Health and every house for fifteen hundred residences was visited, taking the number of diseases in and around that building to which he has referred. Of course, the health should be better in that locality because the houses are new and well arranged. The death rate in that locality, so many in the thousand, was less than the average in

the city, and so it proved in regard to the pupils themselves. But they had taken the same panic that Dr. Sanders has taken in regard to sickness and typhoid fevers and various diseases located about that high school building, and the result was that the Smead system had to be removed. The Board of Education and the Board of Health both insisted upon its being the best system for heating, but still the people demanded the removal, and it was removed. In regard to this dry-closet system in the school, the Smead system should never have been introduced in that building. It was not arranged for it. The heating and ventilation had no equal. Making our tests two weeks ago in the school-room, after sixty or seventy scholars had been in it, we found sixteen or seventeen per cent. of carbonic acid in the rooms; all the ventilation used was by dropping the windows, and that reversed the current. In other buildings in Cleveland it has worked admirably. There are objections undoubtedly to the dry-closet system, and they are that if you go up sixty or seventy feet in a stack you can detect the smell of urine and feces in that stack. The citizens claimed that they could detect that odor on the outside; and I presume if you could take a skunk and place him in that stack you could get the odor in the neighborhood. The dry closet could be detected in the atmosphere. The germ theory is now in vogue; it is in the air, the water, everywhere, and producing typhoid fever. That may be so; but here is something that no man has yet been able to explain, and that is whether germs exist or not. We know that heat and moisture will produce them; now what those germs are, taken out of those 110 feet chimneys, we don't know. It is purely theoretical. If the objectors to the dry-closet system will insert in this stack four or five gas burners it will most effectually destroy the germs if there are any there. The counter-currents of air is another objection. It works very nicely except occasionally when the air sweeps over and strikes the chimney and forces the gases into the room. The burners would remedy that.

DR. CLEMMER.—Two objections have been made to the dry-closet, one is based upon the theory that the disease germs and

bacteria, depending upon organic decay in and about the dejecta rising in gases and thrown off above the house and disseminated in the surrounding atmosphere, cause diseases in that neighborhood. In every city where sanitary regulations are enforced by authority, the common system in use in disposing of sewage is by the soil-pipe, being the vilest part of the system; in this dry-closet system the dejecta being deposited at irregular intervals, with a rapid current of air passing over them, are drying constantly from the very time of their deposit, so that there is lacking the conditions for the forming of noxious gases and disease germs. There is a lack of moisture—one of the essential conditions. On the other hand, in the soil-pipe in your dirt-traps, and in your dirt-closets, you will find all the conditions present for harboring and disseminating disease germs. Every time you plumb a house you simply put defective caps over a ventilation system that discharges sewer gas from every part of the city—and liable to discharge disease germs and all sorts of infection that may happen to be placed down along any other point where the water-closet enters your mains. There you have the conditions favorable for the generation of disease germs. With our defective plumbing and defective ventilation, there is liable to be an escape of sewer gas into the room. Simply because we find in a certain locality a house that is not properly plumbed, and because of certain individuals in that house having been taken sick from malaria or what not, and granting that it is fair to attribute that disease to the escape of sewer gas, it is not fair to condemn the whole sewerage system. There is such a thing as sanitary plumbing, as I have indicated before this Society three or four years ago. There is not a gentleman here coming from a city but what has treated cases which he can fairly attribute to the bad sewerage; still he will not condemn the sewerage system in toto because of that. Dr. Owens says in this city the system has been condemned. One school building has already the system; two other school houses in process of erection have adopted this method; in Columbus there are eight or ten. In Washington City there are over thirty school buildings containing this system. Dr. Claypool, coming from the home of the Smead system, ought to be heard; he says in Toledo it is a universal success.

NECESSITY FOR PURE DRINKING WATER.

By R. D. TIPPLE, M. D., Toledo.

Under the head of sanitation or sanitary science, I offer a few words on the subject of the water we drink. This subject, evidently of vital interest, does not receive the attention that its importance demands. Most people think that if water looks clear and clean it must be pure and wholesome, regardless of its source or manner of production, and drink it freely without asking any questions. Now, the human stomach may be, to a certain extent, a deodorizer and purifier of water, and very bad water may be occasionally drank without any unpleasant or serious consequences, especially if resistance or recuperation in the subject who drinks it is strong. But when we habitually take into our stomachs water that is filled with all manner of visible and invisible filth, which is often the case; when we consume water from city wells, filthy rivers and, last but not least, water from old, slimy, muddy and filthy charcoal and gravel filters, the system soon clogs up with poison, and the germs of disease. And what then is the consequence? In my opinion more disease results from the use of impure water as a beverage than from all other causes. I am not here as a champion of any especial filter, but I do say that the average charcoal and gravel filter, which receives all manner of dirt and filth directly into its interior, will soon become a muddy and slimy mass, forming a bed for vermin, and many forms of animal life such as worms, wigglers, bugs, etc. You can be your own judges of the effects of such unwholesome water. The Scriptures say, "a man is

not defiled by what cometh out of him, but by what goeth into him." I am using in my family a filter which is comparatively new in the market, and one that I can highly recommend for producing absolutely pure water (as far as it can be purified by artificial means), from whatever source it is obtained. In the Ziegler filter the water passes through the minute pores of a large artificial porous stone cylinder, and is afterwards deodorized by charcoal, producing the very finest water in abundance. The cylinder is perfectly germ proof, no dirt or germs of insect life can possibly pass through it. The bucket containing the filtering apparatus retains all the dirt and mechanical impurities separated from the water, and may be lifted out of the main tank occasionally and emptied, thereby easily getting rid of all the impurities. The charcoal, which is in the bottom of the main tank, receives the filtered water as it drips down from the outside of the cylinder and completes the purifying process. The charcoal in the tank can be readily exposed and replaced, which is only necessary about every two or three years, at the trifling expense of about 20 cents. These filters are durable, being made of galvanized iron and lined with water-cement, which is impervious to the action of water, consequently the liability to rust is entirely obviated; in fact they are simple, durable, economical and perfect, being the only filters in the market that have no competition as far as I have ever seen.

They are put up in the form of simple filters of various sizes, or in the form of filters and coolers combined, being made double, the spaces filled with charcoal as a non-conductor, the ice being put into the receiving tank of unfiltered water. These filters and coolers combined make the purest and most delicious ice-water. They are made in ten different sizes, with capacities from one-half to seven pails of water.

NATURAL GAS.

By J. C. FAHNESTOCK, M. D., Piqua.

I confess embarrassment in appearing before this audience to express my views on the method of warming our dwelling-houses and places of business with natural gas.

We are living in an age of light and progress, and every branch of knowledge and science is ripening to perfection. The stage-coach of fifty years ago has been displaced by the lightning speed of the iron horse, and countless railroads interlace the states and annihilate distance. Above our heads the telephone and telegraph wires are suspended as thick as the warp and woof of the spider's web. The daily news is carried to the distant frontiers with the speed of electricity. Thick strewn as the leaves of Autumn, the press conveys the latest thoughts everywhere. Every writer on important topics and every speaker on public affairs is conscious that he is addressing his peers and often his superiors, and such are my feelings on this occasion.

At our last meeting we listened as Dr. Hershberger read his paper on Natural Gas: a Sanitary Factor. One of his first statements made in reference to heating our homes, was that the good old wood fires of our forefathers could not be surpassed for real, good, solid comfort, and I shall add that it is the very best fire for health that was ever kindled, provided the rooms be so constructed as to give perfect ventilation.

In making a few remarks on natural gas, I will say that it is very convenient, especially for lazy people, as the gas being once

started, the fire regulated by a uniform pressure and mixers, the entire work is done and the fire continues the same the year round. All persons having anything to do with natural gas know that it produces an intense dry heat. It is a peculiar heat of its own kind and no other heat is just like it. The heat is continuous and rapidly takes away all moisture from the room, drying up the wood-work and furniture and drawing it out of shape. It tarnishes silver-ware very rapidly, owing to the sulphur which is in the gas. All this is going on continually, notwithstanding a free use of water in the rooms where the gas is used; however, it is somewhat obviated by using water freely.

In using gas in stoves that have been previously in use, the mixer is placed near the stove, the air rushes through the mixer and the oxygen of the air uniting with the gas is consumed. This being a radiated heat, you can easily see that the oxygen of the air in the room is rapidly used up and the air thus heated becomes intensely dry and vitiated. Therefore, you can readily understand that the fire is not going on like a wood or coal fire—not by a draft and fresh air coming in, but a continuous using of the oxygen already within. In furnaces, the heat is much more intense and drier. When the gas is used in furnaces the heat is very distressing to a great many, even if the temperature is not above 70° . The same is also true in some cases where it is only used in stoves. Where the heat is above 68° or 70° a great many will be troubled with dizziness, pressure on top of the head, a dull headache continually, pressure across the lungs, and as some have told me, like a band tied around the chest. One lady says her head and throat feel as though they would burst, cannot bear her collar on or dress fastened at the neck when about her house work, even in the coldest weather, and feels like she would choke and is continually “taking a good, long breath,” as she calls it.

Some of these symptoms may be due in a measure to the sulphur in the gas which has escaped. I have noticed cases of sore throat produced by natural gas that kept up persistently defying all treatment, but were cured in a few days by going to the country where wood was used for fuel. One old gentleman stated to me

that he had sore throat for the first time in 43 years, and it continued until he went out to his farm, when it immediately ceased.

I have fully come to the conclusion that the only true way to use natural gas as a fuel is in a grate, with plenty of fresh air admitted into the room, also a free use of water near the fire, in order to keep the air moist. By using it in this manner the chimney is a splendid ventilator, carrying off all odors, and escaped gas, if there be any. Thus the oxygen in the room is not all consumed, as is the case in stoves and furnaces. Where gas is utilized in cooking stoves, if the damper is turned off a little too much it will escape through the seams of the pipes and unite with any steam or moisture which comes from the cooking, and forms a grayish, white gum, which is exceedingly offensive and emits a sickening, sulphurish odor. If galvanized iron pipes are used on the outside of the house, the same grayish, white gum will appear, and during a rain is washed down into the wells and cisterns, and contaminating the water, in a short time renders it unfit for use.

A few rules regarding the proper use of gas may not be out of place.

First.—Great care must be used in having the most careful and perfect plumbing, which must be continually watched, as it is hard to control and is liable to leak at the joints.

Second.—Care must be exercised in lighting in order to avoid an explosion. Light your match or paper first, then turn on your gas.

Third.—Use plenty of water in every room where the gas is burnt in order to keep the air moist.

DISCUSSION.

DR. CLAYPOOL—I have used natural gas and I think that paper will lead to some errors if taken just as it reads. Natural gas makes an intense and dry heat provided it is turned on with pressure enough to keep the temperature up to a high degree and is al-

DR. CLAYPOOL

lowed to run without the proper care. When intelligently used, and your room is properly ventilated, natural gas makes a superb and perfect heat. In comparing it with coal and wood, it is claimed that it makes headache and a dryness of the throat. Where this is true, the fact is that the people are using the gas wrong; they are at fault and not the gas. My experience with furnaces is that they give the best heat in the room, that is, best for the occupants of the room. The objection to the grate is that you have an intense heat in the grate but your room is cold. With the furnace you are supposed to take your air from the outside. You can have fresh, dry air by having plenty of water in the air chamber of your furnace. If you have means of telling the amount of saturation in the air you can keep it above where you want it all the time. In a stove fire you can keep up a good fire during the day, but in a little while it is out and you have a variation in the temperature, and by morning the room is cold. In my practice, I have found that catarrhal troubles are a good deal less than before the introduction of natural gas.

MILK ADULTERATION and THE QUALITY BEST ADAPTED FOR FAMILY USE.

By D. H. BECKWITH, M. D., Cleveland.

Feeding infants and ascertaining the kind of food that will assimilate and digest is no easy task for the physician to decide upon. Various prepared foods flood the market. Some agree with some children that are fed and with other infants they disagree. The few remarks that I shall offer in this paper will be confined to the qualities of the cow that milk is obtained from for feeding infants. The best cattle breeders of to-day prefer for milk and

dairy purposes the Holsteins and Jerseys. The latter animal is of fine texture and has a nervous temperament, and much less hardy than other cattle. The milk from Jerseys is not large in quantity but rich in quality, and contains a large quantity of butter. The calves of Jersey cows do not thrive on their mothers' milk, and grade cows are taken to rear them, therefore we should naturally discard milk that will not rear their own offspring as well as other quality of milk. So little is known of its qualities by milk dealers, that they have in most cities wagons labelled "Jersey milk for infants." When used, it is reduced largely with water. Holstein cows are much larger, stronger and less liable to be affected by sudden changes of the weather than the Jerseys; they give a much greater quantity of milk, and it contains more of the nutritive principle that an infant requires, as casine, milk sugar and lactic acid. I am breeding both the Holstein and Jersey, and am quite well acquainted with the habits and quality of milk. I sold to one of my patrons a grade Holstein 4 years old that gave a quality, as the analysis will show, that is below the milk standard. His child thrived so well upon the milk that three other children are taking it and all doing well. The analysis, four weeks after maternity, is as follows: Specific gravity, 1.0320; total solids, 11.35; fat, 2.25; solids not fat, 9.13; water, 88.62.

I would not recommend thorough-bred cattle. As a rule, people do not care to pay their value, and grade Holsteins or common cows may answer all purposes. A cow that is young and healthy and comparatively fresh in giving milk should be selected, and great care should be exercised in the food she eats and the water she drinks.

The following tables and tests the milk inspector prepared for me while engaged as milk inspector in Cleveland. The quality of milk from the producer, milk man and city stores where milk is kept on sale shows quite a contrast in its standard.

Two years ago I introduced a resolution to the Board of Health in Cleveland to have a milk inspector appointed. A few months since I requested him to make me a report for nine months. The report is as follows:

SIR :—I have the honor to report the following work performed by me as inspector of milk in the service of the Cleveland Board of Health, from January 16th to October 31st, 1888:

SAMPLES COLLECTED.

From producers.	357
From peddlers	947
From stores	904
Total	2,208

PROSECUTIONS.

Notices have been sent to 520 persons for selling milk contrary to the laws of the State of Ohio, and the following cases have been prosecuted for selling adulterated, skimmed, watered and sophisticated milk, as pure milk: T. J. Sedgebeer, milk peddler, Warrensville, arrested January 31st, 1888, for selling milk containing 40 per cent. added water. Tried in Police Court, convicted and fined \$50 and costs. This case has been appealed to the Court of Common Pleas, and is still pending.

Thomas C. Skinner, milk peddler, Warrensville, arrested May 1st, 1888, for selling milk containing 40 per cent. added water. Pleaded not guilty, and was fined \$50 and costs.

Frank Stepec, farmer, Newburgh, arrested May 6th, 1888, for selling milk containing 50 per cent. additional water. Tried before Justice Braund, of Newburgh, convicted and fined \$50 and costs.

M. Weber, grocer, 201 Scovill avenue, arrested May 31st, 1888, for selling skimmed and watered milk. Tried in Police Court, convicted and fined \$50 and costs.

C. Breves, confectioner, 38 Scovill avenue, arrested May 31st, for selling skimmed milk. Case dismissed by police prosecutor on payment of costs.

C. T. Miller, milk peddler, Warrensville, arrested May 26th, 1888, for selling sophisticated milk. Tried in Police Court and acquitted.

C. Wenz, baker, 643 Lorain street, arrested July 31st, 1888, for selling skimmed milk; case dismissed by police prosecutor on payment of costs.

A. Brimicombe, grocer, 26 Garden street, arrested October 13th, 1888, for selling skimmed milk; case dismissed by police prosecutor on payment of costs.

COLLECTION OF SAMPLES OF MILK.

Samples of milk are taken from the cans as they are unloaded from the cars at the various railroads entering the city; from peddlers' wagons, and from stores where milk is offered for sale, and the samples of milk collected are taken to the laboratory and examined by the inspector.

METHOD OF EXAMINATION.

Specific Gravity.—The specific gravity is determined by the lactometer, which gives results in degrees; correction being made for the temperature and the specific gravity of the milk at 60° Fahrenheit.

Approximate Percentage of Fat.—This is determined by Feser's lactoscope. The instrument consists of a small glass cylinder, graduated by lines showing the percentage of fat; enclosed within the cylinder is a smaller one, of white glass, on which are ruled several black lines. Four cubic centimeters of milk are placed in the cylinder by means of a pipette, and successive portions of water are added until (after thorough mixing with each addition) the opacity of the milk is reduced to a point where the black lines in the small white cylinder can be seen without being too distinctly visible. The level of the mixture of water and milk gives the percentage of fat. All samples of milk that do not contain 11 per cent. total solids and 2.75 per cent. fat, are chemically analyzed.

METHOD OF ANALYSIS.

An analysis is made to determine total solids, solids not fat, fat, and water, contained in the various samples of milk to be examined.

TOTAL MILK SOLIDS.

To ascertain the percentage of total milk solids, five grammes of milk are weighed in a platinum dish of known weight, and the dish and contents are placed on a boiling water bath for three hours, or until the dish with contents cease to lose weight. The dish is thoroughly dried and the whole weighed, the result being the weight of dish and solids. The original weight of dish is subtracted, giving the weight of total milk solids in 5 grammes of milk. The percentage (or grammes of milk solids in 100 grammes of milk) is ascertained by multiplying by 20.

WATER.

The percentage of water is found in the loss sustained by the 5 grammes of milk during evaporation, multiplied by 20.

TO FIND MILK SOLIDS NOT FAT.

The dish containing the total milk solids is filled with benzine, and heated on the water bath to the boiling point, when the fat is rapidly dissolved. The benzine is then poured off from the milk solids in the dish, and this process is repeated three times. The contents of the platinum dish are thoroughly washed with benzine, and after the dish is carefully dried are weighed. The weight of dish and contents, less the original weight of dish, gives the weight of solids not fat, the fat being dissolved by the benzine and removed. The net result multiplied by 20 gives the percentage of milk solids not fat.

FAT.

The difference between milk solids not fat and total milk solids, gives the percentage of fat.

ASH.

The platinum dish and contents (solids not fat) are heated to a dull red heat until the organic portion of the milk is consumed, and the residue is quite white; its weight is that of the ash contained in 5 grammes of milk, which, multiplied by 20, gives the percentage.

Special attention is directed to the appended tabulated state-

ments of the examination and inspection of milk, showing the difference between producers, peddlers, and store-keepers, in all the component parts of milk, and proving its deterioration in transitu.

A complete record is kept of samples collected and examined, and a report is filed daily at the Health Office. A printed notice is sent to all dealers of milk, when the same is of poorer quality than that required by the laws of the State of Ohio. Copies are hereto attached of Book of Record, and also of notice sent to milk dealers.

Respectfully submitted,

JOSEPH MELLOR, M. D.,

Inspector of Milk.

CLEVELAND, Dec. 1, 1888.



TABLE OF MONTHLY AVERAGE.

A—PRODUCERS.

MONTHS.	SP. GR.	SOLIDS.	FAT.	SOLIDS NOT FAT.	WATER.
January.....	1.0285	11.27	2.90	8.37	88.73
February	1.0322	13.37	3.78	9.59	86.63
March	1.0369	13.41	2.82	10.317	86.59
April	1.0325	12.11	2.72	9.39	87.89
May.....	1.0295	11.41	2.80	8.61	88.59
June	1.0308	12.081	3.054	9.027	87.919
July	1.0311	12.15	3.05	9.10	87.85
August.	1.0305	11.992	3.047	8.945	88.008
September.....	1.0314	12.003	2.873	9.13	87.997
October.....	1.0311	12.41	3.25	9.16	87.59
November.....	1.031	12.13	3.05	9.08	87.87
December.....					

B—PEDDLERS.

MONTHS.	SP. GR.	SOLIDS.	FAT.	SOLIDS NOT FAT.	WATER.
January.....	1.0288	11.08	2.69	8.39	88.92
February.....	1.0346	12.44	2.54	9.90	87.56
March	1.0317	11.84	2.68	9.16	88.16
April	1.0323	12.05	2.72	9.33	87.95
May.....	1.0329	12.25	2.75	9.50	87.75
June	1.0303	11.08	2.996	8.93	88.92
July	1.0314	12.07	2.92	9.15	87.93
August.....	1.0307	11.806	2.858	8.948	88.194
September.....	1.0306	11.64	2.75	8.89	88.36
October	1.0318	11.96	2.75	9.21	88.04
November.....	1.0309	11.82	2.83	8.99	88.18
December.....					

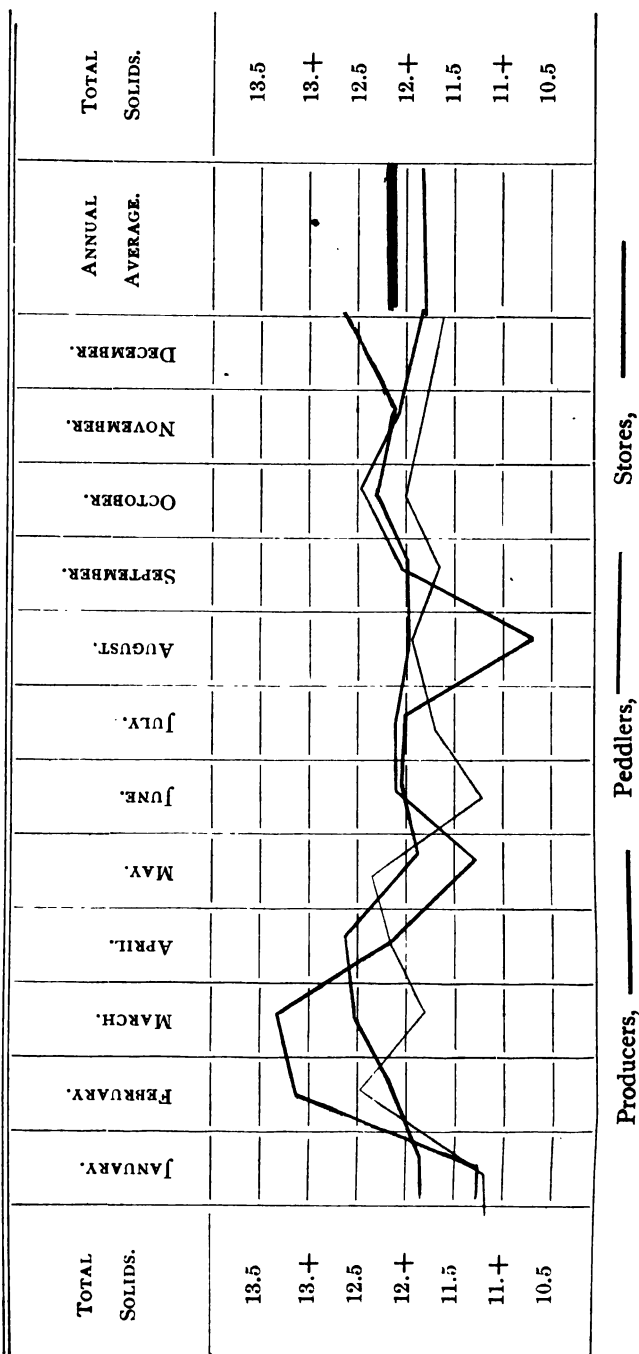
C—STORE-KEEPERS.

MONTHS.	SP. GR.	SOLIDS.	FAT.	SOLIDS NOT FAT.	WATER.
January.....	1.0323	11.957	2.64	9.317	88.043
February.....	1.0332	12.38	2.73	9.55	87.62
March.....	1.0338	12.57	2.81	9.76	87.43
April.....	1.0342	12.68	2.82	9.85	88.32
May.....	1.0315	11.97	2.82	9.15	88.03
June	1.0324	12.065	2.705	9.36	87.935
July.....	1.0327	12.05	2.63	9.42	87.95
August.....	1.0304	10.547	2.587	7.96	89.453
September.....	1.0319	12.+	2.76	9.24	88.+
October.....	1.0343	12.42	2.59	9.83	87.58
November.....	1.0323	12.10	2.76	9.34	87.90
December.....					

D—GENERAL AVERAGE.

MONTHS.	SP. GR.	SOLIDS.	FAT.	SOLIDS NOT FAT.	WATER.
January.....	1.0301	11.40	2.67	8.73	88.60
February	1.0326	12.38	2.68	9.70	87.62
March	1.0332	12.28	2.78	9.50	87.72
April.....	1.0339	12.44	2.74	9.70	87.56
May	1.0313	11.88	2.79	9.09	88.12
June	1.0312	12.04	2.94	9.10	87.96
July	1.0319	12.09	2.83	9.26	87.91
August	1.0305	11.45	2.83	8.62	88.55
September.....	1.0311	11.82	2.79	9.03	88.18
October.....	1.0324	12.26	2.86	9.46	87.74
November	1.03131	12.07	2.94	9.13	87.93
December.....					

TABLE OF TOTAL MILK SOLIDS.



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RECENT ADVANCES IN ETIOLOGICAL SCIENCE.

By E. R. EGGLESTON, M. D., Mt. Vernon.

Whether gratifying or otherwise, it is interesting to observe and note fluctuations in etiological science—gratifying, certainly, in so far as our own views are sustained, and otherwise in view of the inconstant enthusiasm of the kings and priests of professional opinion. The revolution promised by the evolution of bacteriology is over due; in fact the theory has “gone wild”—to use an expressive term of the rail. Just at this critical juncture another “new era in medicine” is promised, and again it is “as luminous as it is precise.” With your permission, the world-honored London *Lancet* will bow it in in these words:

“The discovery by M. Gautier of the part played by ptomaines and leucomaines in the pathogeny of disease, is a terrible blow to the microbial theory, as in a paper communicated by the author to the Academy of Medicine it has been demonstrated that the non-elimination from the body of dead animal matter is the source of all human ailments. Prof. Peter has always been vehemently opposed to the bacillary theory of the etiology of disease, and looks upon the discovery of ptomaines and leucomaines as a new era in medicine. Although he himself had long ago foreseen the existence of such elements as causes of diseases, it was left to M. Gautier, the eminent chemist, to formulate his theories in a more scientific manner. This new theory formed the basis of a very interesting paper read by Prof. Peter at the Academy of Medicine, in which he makes out that this new theory of auto-infection is quite compatible with clinical observation, whereas the microbial

theory is so shrouded in mystery that Koch himself had been induced to considerably alter his opinions respecting the role of the comma bacillus in the development of cholera, and now declares that the disease is caused by a ptomaine secreted by a bacillus. In concluding his paper, Prof. Peter made the following remarks: 'M. Gautier has shown that in the dead body, and even in the living, ptomaines are formed; these alkaloids, ptomaines, or leucomaines, are absolutely toxic; an auto-infection, characterized by hyperthermia, is the result. This theory rids us, at least for a time, of the tyranny of the microbes. If urea, which is an alkali, is constantly formed in the organism, why should there not also be formed an alkaloid in it? It is only a question of degree. Life is a contingent phenomenon; it is a series of partial deaths. It may, therefore, be said that we carry in ourselves while living a portion of our own corpse, but we resist the work of auto-infection by two distinct mechanisms—the elimination of toxic substance, and its destruction by oxygen. We should no longer hesitate between the parasitic doctrines, which are shrouded in dark hypotheses, and this new doctrine, which is as luminous as it is precise, which explains the phenomena of normal and abnormal life.'"

Thus, then, may a second tired actor bow himself off the stage with an affecting farewell to his short-lived greatness.

Dr. Sternberg, in his late president's address before the American Public Health Association, basely alludes to the change of front as a "claim," but, for himself, clings to the microbe.

And now comes the eminent analyst, microscopist and bacteriologist, Prof. Vaughn, who adopts the new doctrine in whole and part. It should be said, perhaps, that he *adapts*, rather than adopts, for he attaches the new to the old, arguing upon an assumption as bald as a boulder. He assumes that because a ptomaine is found in the intestines of cholera patients it is the result of a secretion from, or decomposition of bacteria, and is the cause of cholera; just as previously he had assumed that because the comma bacillus was found there it was the cause of the disease. It begins to be made manifest, as has been pointed out from time to time by men as eminent as these, that there are processes antecedent, of which

both these phenomena are results. It has been repeatedly shown that all microbial life is but a conservative element, the machinery whereby nature accomplishes the decomposition of devitalized matter; that time, place, space and circumstances appear as necessary conditions for their operations; and that when propagated in diseased tissues they may become carriers of toxic material. Then why ptomaines are predicated of microbes, as antecedent and consequent, appears in no plainer light than why the comma bacillus and cholera present the same relations, both ignoring the admitted function which nature presents.

Later, Bouchard enters the field with a course of lectures based upon the memoirs of Peter and Gautier, which "aims at conducting analyses of morbid phenomena with a view to ascertain how far they may be productive of, or dependent on the action of material obnoxious to nutrition and nervous reaction, and to demonstrate that whether introduced into the system from without, or resulting from perversion of metabolism, secretion or elimination from within, these poisonous principles explain the origin and mechanism of much of what is called disease." He goes on to name four sources of auto-intoxication: 1—An abnormal vital condition—defective nutrition, hereditary or acquired. 2—Morbid effects of external causes—physical, mechanical or chemical. 3—Complex processes, as any other complicated by reflexes. 4—Invasion of the economy by contagious or infectious elements. He then continues: "Seeing the importance of the part played by disordered nutrition, nervous reaction and putrefactive infectious processes continually at work in the economy, we are confronted with physics and bio-chemical process of animal organic growth and decay, their chemical products, particularly those now known as ptomaines and leucomaines, and finally with the fact that in life as in death, so-called aerobic and anaerobic processes co-exist, apart from, and irrespective of bio-chemical interjectional activities."

Suggestive, rather than positive, is the point made by Dr. Anderson in an article on "The Causation of Fever," lately published in the *American Lancet*. He says: "Many diseases which are mild and benignant, such as ordinary typhoid or adynamic bilious fevers, dysenteries, erysipelas and diphtheria, by improper

treatment or neglect may generate pathogenic ptomaines, become malignant, and thereby transmit similar disease to others."

In the same category must be placed Bamberger, who lately published a case of gastro-enteritis induced by the ptomaine of poisonous sausage.

In both the latter references, let it be observed, no mention is made of bacteria in any relation, but to chemical changes only. And so the instances will rapidly multiply in which this new disease product will be substituted for the old; and it therefore appears that research along this line must hereafter proceed in the laboratory of the chemist, rather than under the eye of the microscopist. But I venture to say that when each has reached his utmost limit, the question of causes will still remain unanswered.

And now to glance at the present state of that other department of etiological research, the physical—or that which deals with the natural forces and their relatives. A vast deal of quiet but effective work is being done, which must, at no distant day, show some results—results based upon facts instead of assumptions. Perhaps the most valuable and authoritative of late productions are the "Milroy Lectures on Epidemic Influences," delivered before the Royal College of Physicians of London, by Robt. Lawson, LL. D., Inspector General of Hospitals. Let the following briefly indicate the scope of the work:

"It has long been recognized that there exist certain factors intimately concerned in the diffusion and intensification of disease, from time to time, which are not referable to individuals or localities, and which factors have often been vaguely referred to by the conventional terms of 'epidemic constitution,' 'epidemic influence,' and 'pandemic influence.' " A study of the facts shows that these epidemic factors embrace large portions of the earth's surface at the same time, and that this course from year to year is somewhat definitely defined. With regard to febrile epidemics, he holds that when developed at various points, from time to time, they pass uniformly to the northward until they finally disappear. They recur periodically every second year, or at some multiple of two years, and like a series of waves pass over a more or less extensive

portion of the earth's surface. These waves he has named "pandemic waves," but as to their nature nothing is known at present. As their position from year to year seems defined by lines of equal magnetic dip, he infers that they may be dependent in some way on that force. Dr. Lawson has collected facts to show that under the influence of the same pandemic wave different forms of fever arise in different localities, from which he infers that there exists the operating force of additional factors. Thus, for example, in places where remittent or continued fever are the common fevers, yellow fever makes its appearance at intervals of a considerable number of years, where there existed no trace of it, indicating that there is a special factor leading to the development of this disease in a locality where the circumstances are suitable. These latter embrace states of the weather, conditions of the soil, especially that of moisture, and the presence of the particular miasm which engenders the disease.

As a matter of course, indisputable conclusions upon these topics lie still in the future, but the drift of opinion sets very decidedly against the germ theory, and toward the wider range of causes precedent, leaving the germs as a later and less important element.

And now, finally, I quote from a paper read before the American Public Health Association in 1887, by Ezra M. Hunt, M. D., Secretary State Board of Health of New Jersey, entitled, *The Origin of Some Diseases*, in which he gives the following "practical results:"—

"1.—The study of parasites, or germs, as they are called, is only one of the methods of informing ourselves as to the phenomena of disease, and in itself is not primarily the key to rational and successful treatment.

"2.—Our attention should be directed far more than now to the study of conditions and circumstances under which new forms appear; to the influence of persons and surroundings, instead of the mere finding of a specific form. The latter would, of course, be most valuable as one of the facts in the chain of evidence, but we should not, as now, seek so much to look to it as the cause of

disease as to inquire what conditions have *caused* this or that particular microphyte to be present.

“4.—If we are looking to the biological laboratory for the natural history of disease, or to the chemical laboratory for the application of remedies, we shall surely fail. The science or art of sanitation has far more to expect from a study of the conditions of persons and surroundings under which diseases or types, and modifications of disease, manifest themselves, as also from a study of the prevention or obliteration of such conditions, than it has to expect from the finding of microphytes as the source of disease, and seeking to cure disease by expelling micro-organisms or attenuating them.”



BUREAU OF MATERIA MEDICA.

MAGNESIA PHOS.

Continuation of last year's work by

H. C. ALLEN, M. D., Ann Arbor, Mich.

J. C. FAHNESTOCK, M. D., Piqua.

O. W. LOUNSBURY, M. D., Cincinnati.

J. A. GANN, Wooster.

MAGNESIA PHOS.—PROVING.

By O. W. LOUNSBURY, M. D., Cincinnati.

The 30th, 200th and 1,000th attenuations were obtained from Smith's Pharmacy, New York City.

PROVERS.	POTENCY.
No. 1—E. C. Buck, Medical Student	200th.
No. 2—C. C. J. Wachendorf, " "	200th.
No. 3—J. T. Wright, " "	200th.
No. 4—C. C. Meade, " "	1,000th.
No. 5—W. G. Rogers, " "	1,000th.
No. 6—J. W. O'Bannon, " "	1,000th.
No. 7—Douglas Meader, " "	30th.
No. 8—Miss Jessie I.,	1,000th.

DIRECTIONS.

Ten drops of medicine into one-half glass of water and take two teaspoonfuls every two hours for four to six doses, and await symptoms, and duly record same; when after disappearance of symptoms repeat as before. The following are their abbreviated reports:

No. 1. Oral report. No symptoms.

No. 2. Reports three trials of the drug, with 10 drops in one-half glass water, two teaspoonfuls every two hours for six doses.

First trial, February 1st. No symptoms.

Second trial, February 6th. Redness of face, with heat of cheeks and desire for sleep.

Third trial, February 12th. Heat of cheeks, desire for sleep, sensation of weakness, desire for rest and society, carelessness.

No. 3. Reports upon taking the drug the following symptoms presented themselves. After four doses, light-headedness; on moving around, vertigo, followed by a dull continuous headache in forehead; rumbling in umbilical region followed by slight cramps and unusual moving of bowels. Subsequent trials gave similar, but much lighter symptoms.

*No. 4. I took the medicine at four different trials as directed.

First series of doses seemed to create a gnawing, cramping in the stomach, also considerable rumbling and escape of gas, felt cold, and limbs ached as though I had a chill.

Second series acted in like manner, but with less marked symptoms.

Third series same, but with less effect than second, and very much lighter than first.

Fourth series had no perceptible effect.

This prover adds that he had not been accustomed to such symptoms.

No. 5. Reports on February 4th much flatulence in stomach and abdomen. Frequent eructations. Loose, yellow, bilious-smelling stools. Pain in left lumbar region. Shooting, sticking pains in abdomen that come and go suddenly. Rumbling in abdomen. Urine, after standing, presented white, cloudy appearance.

February 8th. Similar symptoms.

February 12th. Symptoms not so marked.

February 15th. No marked symptoms.

No. 6. No report.

No. 7. No report.

No. 8. Took five pellets saturated with the 1,000th attenuation January 21, 1889. Second day frontal headache, tired, very exhausted feeling in lower limbs and abdomen lasting three days. Flushing of the face, heat of same, slight vertigo. Menstruation occurred one week before the usual time, succeeded by unusual constipation for several days.

Repetition of doses at weekly intervals developed similar symptoms, but of a much milder character.

DISCUSSION.

DR. ALLEN—When Dr. Gann reported to me that a patient of his had discontinued the drug because he believed it had produced an attack of bilious fever, I wrote for the particulars of that bilious fever. It was a peculiar coincidence that four of my provers had to stop the proving because of attacks of bilious fever between the fourth and fifth day; that was why I wanted a report of this noted from the beginning to the end. I have no doubt that this patient's attack of bilious fever was the result of the *Magnesia phos.* from the coincidence of the three others of a similar character occurring about the same time of the proving. One of my provers wrote me that she had used the drug in nearly every case of dysmenorrhoea in the dispensary and with almost uniform success, but couldn't give me a symptom. I simply mention this to note our carelessness in what we might obtain if we were a little more watchful. Had this lady carefully written down every symptom of every case of dysmenorrhoea which had been cured by *Magnesia phos.* what a beautiful clinical record in a short time we would have had, and in a short time, possibly, all verified by the provers. I have also received a proving by an allopathic physician; a man who disbelieves in our potencies in any and every form, one of the most bitter of the bitter so far as homœopathy is concerned, but who, notwithstanding, experienced all the peculiar symptoms of *Magnesia phos.*

DR. BALDWIN—I have prescribed *Magnesia phos.* at least once every day since last year. I don't think there is a day goes over my head that I don't give *Magnesia phos.*, and I have invariably used it in the sixth trituration. I use it in cases of dysmenorrhoea that I formerly treated with *Ignatia*, *Pulsatilla*, or *Gelsemium*, and I have had most satisfactory results with it.

DR. EDGAR—I have used it a good deal this year, but particularly in neuralgic difficulties. I have used it mostly in the fourth trituration.

[NOTE.—Owing to the incompleteness of the several provings made, and the desire on the part of the bureau chairman to continue the work, the remaining papers of this bureau have been withheld from the present publication.]



BUREAU OF PÆDOLOGY.

DR. WM. OWENS, SR., CHAIRMAN *pro tem.*, Cincinnati.

C. D. CRANK, M. D., Cincinnati.

WM. OWENS, SR., M. D., Cincinnati.

ALICE M. TRACY, M. D., Urbana.

T. C. DUNCAN, M. D., Chicago.

ON THE ETIOLOGY AND PATHOLOGY OF POST-SCARLATINAL NEPHRITIS.

By C. D. CRANK, M. D., Cincinnati.

Any one at all familiar with the literature of post-scarlatinal nephritis must have observed the lack of uniformity, both in description and in opinions expressed by different writers upon the subject.

The trouble has arisen, as Pepper states, in the attempt to describe and consider this condition as a single disease, while in fact, it exists in more than one form.

The frequency of renal complications following scarlet fever led to more careful observations, when it was discovered that it occurred even oftener than had been supposed. It was estimated that fully two-thirds of all scarlet fever patients, either during the fever or during convalescence, give evidence of renal disturbance more or less severe. Delafield states the symptoms may be observed from the first day up to, or during the ninth week. The largest number of cases developing on the fourteenth day, next largest on the twenty-first day, and the next on the seventh day. A careful review of a larger number of cases shows that the heaviest mortality attends those cases in which the symptoms appear after the tenth day.

The form of nephritis appearing during the early or fever stage differs materially from that developing at a later date. That is, during the period of convalescence. The early form is mostly limited to the malpighian corpuscles, and if it exhibits any disturbance

of the renal epithelium it is of an exceedingly modified character. This form is the result of a reflex nervous condition, seldom assuming a serious nature, and disappears as the primary fever subsides, and the nervous manifestations, which accompany this stage, abate. It manifests itself by the smoky appearance of the urine, sometimes by the presence of mucus, indicating a slightly catarrhal condition of the renal tubes. Or, we may have the presence of albumen, with a few hyaline casts and possibly a little epithelium. These symptoms soon disappear without systemic disturbance and without leaving a trace of renal weakness. It usually exists without the physician having discovered it. Nephritis, as a primary affection, is not so rare a disease among infants and children as generally supposed. If the physician examined the urine of every sick child under his care he would be surprised at the tendency among children to renal disturbances. I have so often observed this that I have asked if age was not a predisposing factor.

The time of the first appearance of the renal symptoms is almost pathognomonic of the gravity of the complication. Like convulsions in scarlet fever, the earlier they develop the less we have to fear, and the later they appear the more serious the complication. This is not invariable, for we meet with instances of both convulsions and renal symptoms appearing on the first day, proving a serious and, at times, fatal complication.

Nephritis coming on during the period of convalescence is a much more serious affair, and is intimately connected with structural change. I need not occupy the time of the society by repeating what Klebs, Klein and others have so well said and which is to be found in our text books. I will call the attention of the profession, however, to the great importance of an early examination of the urine in every case of scarlet fever. The milder the case the greater the necessity, for statistics show that the severer forms of nephritis follow the lighter forms of the fever. It is well-nigh criminal to wait until the enemy is in possession of the citadel—as indicated by a puffiness in the cellular tissues about the eyes before instituting such an examination. It is time lost and frequently past recall in the struggle that follows.

It is our duty not only to detect an early appearance of the enemy, but to anticipate his approach, which is possible by an early examination from the first day, and its continuance, at intervals, up to and through the ninth week.

The presence of albumen alone is not so serious a matter as generally supposed. It simply indicates a state of renal congestion and pressure in the malpighian capillaries, or whatever the cause it is no indication of the severity of the attack. Having found albumen, however, we should make a careful microscopic examination of the urine, from which we may learn the exact nature of the lesion, if any. "We should also make a chemical analysis, both qualitative and quantitative, especially estimating the amount of urea excreted, which, as Dr. Carter shows, will determine the degree of structural change."

There are several popular superstitions connected with post-scarlatinal nephritis which pass for invariable facts.

First. That nephritis following scarlet fever differs from that following diphtheria, pneumonia and other morbid conditions. Pathology reveals no difference, and there is nothing to prove that the cause of all this class of renal troubles is not the same. "The result of an effort on the part of the cells to eliminate from the blood some abnormal product, some material which does not naturally enter into the composition of renal secretions." In this work the renal cells become modified in their action and nutrition.

The "abnormal product" may differ in name, but its effect upon the kidney is the same. Again, it is generally believed that owing to the "skin disturbance" a double work is thrown upon the kidney, resulting in the troubles which follow. The acceptance of this idea again led to the belief that exposure and "taking cold" was a prime etiological factor—a kind of suppression of the disease, throwing it back upon the kidney.

As regards the "skin disturbance," it has been shown that renal troubles more frequently follow the milder cases of scarlet fever, cases where the several "skin disturbances," inflammation, eruption and desquamation were scarcely observable or exceedingly light. It might be claimed, and with better proof, that the

nephritis was owing to the absence of the usual "skin disturbance" rather than to its presence.

In regard to "taking cold" it has been conclusively proved that renal symptoms more frequently follow milder cases and when every care and precaution has been exercised, when the little ones had not been permitted to leave the bed and room. It is not only possible but highly probable that exposure and neglect contribute to the development of these cases following scarlet fever as they do in any other sickness, to the same extent and no further.

Why nephritis so frequently follows scarlet fever we do not know. The theories of to-day will, as Delafield states, continue to prevail until such mechanical views give way to a more careful comparison of the lesions with those of the lungs, liver and other organs.

DISCUSSION.

DR. OWENS—I don't want this paper to go by default. I am inclined to think that catarrhal affections have a great deal more to do with nephritis than the books are disposed to credit them with. I think that in the majority of cases nephritis is the result of more or less atmospheric contact with the new skin. You will observe that the earlier symptoms of the disease are manifested sometimes between the eighth and twenty-first day, sometimes later, but the authorities are not agreed upon that point; but eight days is the earliest period laid down by any authority for the appearance of the smoky urine. Now, this is the period of desquamation, when the epidermis is peeling off, and the new skin is exceedingly sensitive, and many times the slightest impact of cold air upon the surface gives rise to cold or catarrhal affections, and that in my judgment results in the development of the post-scarlatinal nephritis. Now, my plan has been—I don't have one case in twenty as I watch the urine very closely—my method is this; when the eruption begins to peel off, and the itching is pretty well advanced, to bathe my patient in boiled milk and water, two or three times a

day ; that will allay the itching, and I do not allow the milk to be dried off nor sopped off ; I allow it to evaporate. Why ? The milk forms a substitute for the old epidermis, and protects the new skin against the atmospheric impact, and relieves the patient from the dangers of post-scarlatinal nephritis. I make this a rule in all eruptive diseases. I use equal parts of boiled milk and water, sponging them off two or three times a day, and I seldom have a case of nephritis.

DR. WEBSTER—I have been watching this matter for many years, and think I have never had a case of nephritis after desquamation is completed, but it is always during the process of desquamation. As the skin is covered with a cuticle just like varnish, the kidneys are called upon to perform extra duty. The best remedy I have found yet is Apis. I never resort to bathing. I keep the patient quarantined, and give this remedy. We had an epidemic in our city, and my cases have all passed off without this trouble. But I have seen them where during desquamation they would go out and bathe in water and take cold and have this nephritis, but never after the desquamation is complete.

DR. BEEBE—A number of years ago I lost several patients from nephritis after scarlet fever. The last five years I have never failed to produce sweat every night for a week beginning as soon as the fever leaves. Since following this course, I have failed to have a case of scarlatinal dropsy. We all know that if the skin acts well the kidneys will do better. Give the patient plenty of cold water to drink, and in ten or fifteen minutes he will be perspiring freely. Continue this for fifteen minutes or half an hour, then dry and dress them.

DR. GANN—I bathe my patients from the very first moment that the child is sick. The functions of the skin are impaired. A hot bath is the first thing I think of as soon as the child is taken with scarlet fever, and I continue that for days after all traces of the fever have passed off,

DR. WEBSTER—I grease them with a meat rind.

DR. CRANK—Dr. Owen thinks this nephritis usually follows desquamation. The statistics go to show that nephritis following scarlet fever is more prevalent in those cases where there is no desquamation. For the last few years the attention of the profession has been directed to nephritis following milder cases with the result reported, that cold following desquamation is not a very important factor in post-scarlatinal nephritis. Milk baths and even vaseline have been tried and rejected because they throw the disease back on the kidneys. No doubt cold is a cause, but in my opinion not an important factor.

DR. FAHNESTOCK—I have been following Dr. Beebe's plan for the last two years, and I believe the worst case I have had in two years was that of a little boy that had nephritis. As soon as the fever left him, I began bathing as recommended by Dr. Beebe. The boy had dropsical effusion and came very near dying from it. In another case where I used vaseline I had no complication whatever, so I don't think we know what causes it.

DR. MURDOCK—The only two cases that I ever treated of this trouble was in grown people, and the eruption was very slight, but sore throat was very prominent. I examined the urine and found no albumen until the desquamation began. The young man and woman went out doors—the young woman in her stocking feet—and the next day albumen and dropsical symptoms made their appearance.

DR. PARMALEE—If a doctor will take his microscope and examine every case of scarlet fever they will find more or less renal and epithelial casts, sometimes small and sometimes large. The majority of the authorities are agreed that the renal epithelium is cast off in the same way that it is cast off in the skin. A large part of the authorities are agreed that cold will facilitate the process; that nephritis depends upon the almost complete blocking up of

some or all of the tubes in the kidneys. Under that pathology, which in my opinion is the proper one, I give my patients all the spring water they can drink simply to wash out all this epithelium, and they don't have near so severe nephritis as those who don't get plenty of water to drink.

THERAPEUTICS OF POST-SCARLATINAL NEPHRITIS.

By WM. OWENS, Sr., M. D., Cincinnati.

This, as the caption suggests, is one of the morbid conditions which frequently follows scarlet fever as a sequel, not an essential of the disease. It is one of the conditions known as acute parenchymatous nephritis (acute Bright's disease). While its etiology is specific, still it is an accident following that specific cause. Unlike some other forms of acute nephritis it rarely, if ever, terminates in chronic "Bright's disease." The problem of this paper is its therapeutic management. Under proper medical and hygienic treatment it should seldom be encountered, and therefore render the necessity for its treatment infrequent.

The sphere of this paper does not permit further reference to this matter. We shall now call your attention to some of the more prominent features of this affection. The first and perhaps the most prominent early symptom observed is the "smoky urine," which seems to be the precursor of all of the after-mischief. All writers mention "smoky urine," but none suggest a remedy. There is but one drug in our materia medica which has that symptom in its pathogenesis. That drug is carbolic acid, a drug not suggested or used by any writer or practitioner so far as we are aware. This is

a very common symptom of approaching nephritis, and usually the first to be observed, coming on from the eighth to the twentieth day after the attack of scarlet fever. The following are the leading indications for the use of carbolic acid, and comprise an admirable picture of post-scarlatinal nephritis:

Carbolic acid gives us, first, copious flow of urine followed by diminished flow, passing on to enuresis. You who are familiar with this affection will remember in all cases we have an excessive flow of urine as one of the earliest symptoms of acute nephritis, which gradually diminishes until it often becomes arrested.

Carbolic acid—Has also the dark green, almost black, urine, or very highly colored bloody and “smoky urine.” The urine may be alkaline or slightly acid. We have frontal headache, sensation as if a rubber band were drawn tightly across the forehead and temples—disinclination for all mental work, pale face, livid countenance, cold, clammy sweat, loss of appetite, a desire for whisky or stimulants, and corresponds to the early stages of post-scarlatinal nephritis.

Apis mellifica—Has many symptoms of a later stage, and by many is regarded as a chief remedy in post-scarlatinal nephritis, when the following conditions are present: Burning pains at the meatus, frequent urging to pass scanty, high-colored, albuminous urine, with local or general œdema, effusion into serous cavities; the characteristic which indicates this drug is absence of thirst.

Bryonia alba—Is valuable and is chiefly adapted to the later stages, when effusion in the serous cavities has become established.

Senega—Has a few leading indications in the later stages. Urine is albuminous, loaded with mucus, is frothy, separates into strata when cooling, most suitable in effusion into serous cavities.

Terebinthina—Is in our judgment a most valuable drug when the following symptoms are present: Dull, heavy feeling in the head; headache with fullness; vertigo, loss of appetite, nausea, sunken eyes with dark rings around them, black spots before the eyes, heaviness in the region of the kidneys, violent drawing pain in the region of the kidneys—discharges frequently large quantities of clear, watery urine, followed by scanty urine and many

times complete suppression for many hours. The leading characteristic calling for this drug is that the "urine has the odor of violets." The urine becomes bloody and scanty, and deposits a substance resembling coffee-grounds.

Digitalis purpurea—When there are indications of dropsical effusion in various portions of the body. Head is confused, falls back while sitting; vertigo, extreme faintness while standing; pupils dilated and insensible; loss of appetite, nausea, vomiting; much thirst for cold drinks; faintness and sickness at the stomach as if one would die; excessively large discharges of watery urine for several days, followed by diminished discharge and suppression, or urine dribbles away, is turbid, and contains a large amount of solids; pulse slow and intermitting.

Helleborus niger—Has proven very valuable in hydrocephalus, with the following symptoms: Head dull, heavy; vertigo, nausea, vomiting, gloomy, melancholy; urine profuse, watery, followed by scanty, dark-yellow urine loaded with debris, epithelial cells, and albumen. Urine decomposes rapidly. Suitable for dropsies which come on rapidly.

Kali bichrom—May have melancholy, gloomy symptoms, or may be jovial and good-humored, attending these conditions, or may have confusion of thoughts; vertigo, nausea, even a small amount of water may cause nausea to return. Urine dark brownish or reddish color, loaded with mucus, albumen, tube casts, and epithelium.* A valuable drug during the early stages of the affection.

Merc. corrosivus—Is one of our chief drugs for post-scarlatinal nephritis, and is suitable for the first and second stages of the disease, and may be used after carbolic acid or kali bichrom., when the quantity of urine is small, loaded with albumen, bloody, black or turbid urine; pale brown urine, having cells, tube-casts, and much mucus, with grayish sediment.

Arsenicum—Covers a more extensive range of symptoms in post-scarlatinal nephritis than any other drug. In its proving albumen is at all times present, also sediments of various kinds, but chiefly fibrinous and tube-casts, epithelium, blood and mucus.

This drug is also suitable in a great majority of dropsical affections following scarlet fever, whether in the serous cavities or into cellular tissue. It should be selected with reference to its general characteristics of great restlessness, tossing and changing about seeking relief, changing from place to place, anguish, despair, dread of death and being alone, emaciation, and great prostration.

Scilla maritima.—Another most valuable drug, and is indicated when there is a tendency to dropsical conditions following scarlet fever or other form of renal disease which may be associated with it. The drugs thus indicated have been our chief reliance in post-scarlatinal nephritis and its dropsical sequelæ.

We shall not attempt to discuss quite a number of other drugs which have been used in this connection. Among these will be found hepar sul., asclepias tub., eupatorium, apocynum, aurum, sulph., kali carb., kali phos., kali hydr., spongia, tartar emetic, zinc.

Other means used are the hot-air bath, temp. 120°, bathing with boiled milk and water, a light, nutritious diet, chiefly liquids, a warm, well-ventilated room, moderate exercise in-doors, warm and comfortable clothing, and such general management as tends to induce perspiration and maintain it.

DISCUSSION.

DR. ALLEN—Dr. Owens laid it down pretty positively that there was only one remedy—carbolic acid—which had smoky urine. I think that is found under Terebinthia. Preceding the hemorrhagic urine of Terebinthia is smoky urine.

DR. OWENS—Dr. Allen (T. F.) does not give it under but one drug. There is a clinical verification of a certain drug which has smoky urine, but which has not been proven, and that is Hydriodicum. That is the only other drug mentioned by Allen or any

other author that I know of. Carbolic acid about the 3d is my first and chiefest remedy when I find a case with smoky urine. I have very seldom had cases of dropsy. I have had but two cases that came to me after they were far advanced, in which *Heleborus* and *Digitalis* cured the cases; they were bad cases. I wouldn't have given a penny for their prospects. Neither of them was able to lie down for three days and the water was slushing through the chest at every inspiration. For general anasarca I have found nothing equal to *Arsenicum*. I use the Iodide of arsenicum in these cases of nephritis.

DR. PARMALEE—I think that the doctor is mistaken in regard to Carbolic acid being a new discovery for these troubles. Our lamented friend C. D. Beebe, of Chicago, some seven or eight years ago, became almost a crank on the subject of Carbolic acid, and especially the sulpho-carbolate of soda.

DR. OWENS—That is an entirely different drug.

DR. PARMALEE—But it is deemed in many respects similar. If you take it in large quantities Carbolic acid is exhaled through the perspiration and also passed in the urine.

DR. ROSENBERG—We had two epidemics of scarlet fever or scarlatina in the town in which I live, and nearly every case, I think, was followed by this trouble, not losing any cases however. I tried *Jaborandi*. I found it a specific in about thirty cases. I used the tincture in drop doses.

DR. OWENS—The action of *Jaborandi*, you know, is to throw the circulation on the surface and thus relieve the kidneys. You can bring out the perspiration in five minutes by giving five drops of the tincture of *Jaborandi*.

FOOD FOR INFANTS.

By ALICE M. TRACY, M. D., Urbana.

The subject I would bring before you to-day is not a new one and may seem very hackneyed to some.

Infants themselves are no new thing. Multitudes are coming every day and yet each one demands especial attention. And even if I should not be able to present anything new, I may by even a hint turn your thoughts back into channels almost forgotten. There are themes that can not too often be brought before us. We who are trying not only to heal the sick but to aid in the preservation of health need turn again and again to the same subject. There is no profession where the duties are so manifold as those of a physician, and there is no one part of it that demands more time for study and thought than that portion which pertains to the care and treatment of children. It refers to the feeding of infants. It has been just here that I have so often been at sea to know what to do as to prescribe the proper remedy in time of sickness where symptoms fail to elicit the certain remedy. In the first place what are we to do with the mothers who refuse to nurse their children. Of course, we know there are those who can not, whose system has already been depleted to its utmost extent and every grain of nourishment is needed for its own upbuilding, and if the attempt was made the child would soon be deprived of both food and care, then our advice will surely be let the child be artificially fed. But there is another class who utterly refuse when there is nothing to prevent but their own unwillingness to be con-

fined to the care of the child. Society, the curse of the world, demands all their time and attention. And now, if you will pardon the digression, for my own heart is full of this subject, I would like to add that I was taught that there was a time for all things; a time to be born, a time to die, a time for childhood, for school days, for youth, to marry, then settle down to the cares and responsibilities that married life brings. But this is not taught in the curriculum of—well—anywhere now-a-days, and perhaps to us as physicians and advisers this duty is to devolve, and shall we, like the prophet of old, run away from our work?

But to return. We have a young babe on our hands to nourish and what shall we feed it is a problem that must soon be solved. One would think there need be no trouble with the number of samples of infants' food lying on our table that no child need go hungry, but notwithstanding all these samples we naturally turn to the cow's milk as the essential food, so we leave a carefully prepared formula expecting explicit obedience. Before many weeks have passed we are sent for, the child is sick, can retain nothing upon its stomach, vomits its food as soon as taken, the poor thing looks sick and is sick. We go immediately to work to discover the cause and find for one thing that the child has been over-fed. The parents were afraid the child would surely starve to death on milk diluted to any extent and so to ease their own conscience as to the matter of diluting have added a tablespoonful or two of water. Now the child can take no more milk for the present, and granum has to be substituted as the one food that they can take upon an irritable stomach. It will sustain life and that is all that can be said in its favor. I have yet to see the child that can be properly nourished, that will regain strength and flesh on granum. The child has improved just so far and gets no further. Now what shall we do? The multitudes of samples are brought out and tried, many of them answering all purposes; but the complaint is, we cannot afford to feed our baby on these, it is too expensive a food. You see, I have no Vanderbilts or Rockefellers on my list of patrons. The cow's milk is tried again, but soon refused; condensed milk is recommended by some one, and we have so many

kind neighbors who are so profuse with their suggestions, they have seen the condensed milk used and it worked so well. It is tried and fails also. I cannot understand why the condensed milk is any better than the one cow's milk at home. But the last resort, and the one that has proved a success, is the milk from a cow taken from the pasture and fed on dry feed. Then if you have convinced the parents, and by this time I think you have, that milk for a young babe must be diluted, you are all right for the Summer months and also the second Summer. But the feeding of infants is not the only thing that comes under the jurisdiction of a doctor. A Homœopathic physician learns to be very observing, and there are many things we see in the care of children as we visit the homes of our patients that we would like to correct if we could only convince the parents that they were in error. We find the child is allowed to exercise itself so little, only as it can in its mother's arms. There are so many excuses for its being always held. "The child will take its death cold," or will soil its clothes, etc., and here is one point I would like to make, that too many children are not allowed enough exercise or dirt to make them healthy or give them strength. And then another thought, one that was brought before you last year and that ought to be emphasized again, is the teaching children to memorize when mere infants, while yet the brain material is simply chaos, and yet they are made to commit to memory long before they can comprehend the words they are trying to utter. I have seen children who seemed very bright, whose parents were bright before them, made to repeat stanza after stanza, simple enough to us but too much for their childish brain. I have seen these children grow up with no especial talent, but with an unusually nervous system. Had this strain upon the nerve centers anything to do with it?

And then a question I would like to ask: When we go to visit our little patients and find the room filled with tobacco smoke, shall we say anything about it; will such an atmosphere have anything to do with the child's health?

DISCUSSION.

DR. LOVETT—One great thing in preparing infant food is to use milk sugar for sweetening. It is a great error to use cane sugar. I have found that if you take pure milk, whether from one cow or many, and sweeten it with sugar of milk, you will avoid this frequent indigestion with which little children are bothered. The prepared infant foods are many of them good and they have their place; but we resort to them too quickly.

HINTS ON PAEDOLOGY.

By T. C. DUNCAN, M. D., Chicago.

Having been elected honorary member of your body, I feel that I should yearly show my appreciation of the honor. I believe that I cannot do it better than to contribute something from my experience for the general information of the members.

I wish that I could emphasize a fact so that all would feel the force of it. Few realize the great efforts being made to take from Homeopathy the large patronage included in the sneering remarks made against it in the early days: "Homeopathy may do for women and children." The entrance to many a family, as the older members can tell you, was through the children. "Try him for the children," was often the passive consent of *paterfamilias*, which proved the entering wedge that eventually split the whole family and their friends from Allopathy. The wise ones among the regulars no longer consign us to these young members of the family, but are making extra efforts, by medicines palatable, to hold on to these growing, influential members of society. Small, sugar-coated pills, sugar pills, compressed tablets, etc., increase

and multiply. Disks are a sort of compromise that many will like, but nothing is so emphatically homoeopathic as any of our pills below No. 30. I believe we should keep up our distinctive form of administering medicine. More than that, we should educate the people that it is something more than the form of the medicines. Nothing does so much as a careful analysis of a case and selection of the remedy.

I do not want to charge our profession with a neglect of the children, but I want to emphasize the fact that more care should be used in their management. In the early days, our older men will tell you, when called to the child of a family, they knew it was "a lone shot." If they failed they were out for good. You can readily imagine what a most careful prescription was made. Do we make as careful, anxious, thoughtful prescriptions to-day? "He is a good baby doctor," is a remark that has led to careless prescribing, not to say neglect of children, by the thoughtless members of our profession. Cannot you see that if we neglect children's cases some one will get them. The physician who can not and will not understand children's cases will lose one-half of his practice sooner or later. Now is the most auspicious time for some one physician in each city to make children's diseases a specialty. "The family physician" is a strong term and one to be coveted and worked for. The grateful parent will cling to the physician who saves baby. Babies grow apace and the friendship should continue a binding influence. The physicians of the largest practice and most successful have been the family physicians who loved children.

While writing the foregoing, I was consulted by a mother whose case emphasizes some of the points referred to above. Her baby has the following history: It was the seventh; it was not wanted. The maternal instinct was strong and when appealed to prevailed. It was well nourished when born and all seemed well. When I presented my bill for full services rendered, I was paid, but with a pout, and informed that "our relations would now cease." I had simply done my duty and said, "very well," and supposed I would never see the family again. To-day the mother comes (the very first time she is down town) to consult me about baby and to get

my advice. (Would I be less than human if I should here remark, "blessed be the tie that binds" this family pocketbook to my supposed skill?)

But let us look into this case carefully. It must be helped and that speedily. It cries at night, disturbs *paterfamilias*, throws up its food and seems out of sorts. She is a brunette of spare build, hence has little milk; is constipated and has poor appetite, hence gives milk that is hard to digest. She feeds it some. Shall she wean it? Is fed partly on Nestle's Food, which it throws up, but not at night, in curds, and seems so sick vomits soon after eating. Can the mother's milk be improved? We will try by slop-feeding her. She is ordered cocoa-shell tea between meals and a drink of water after each time nursing, a liberal diet and plenty of gruels. There are two objects in that: 1st, to increase the milk, and, 2d, to render, if possible, the alimentary contents more semi-solid. A careful examination reveals no uterine displacement to cause mechanical obstruction to the bowels. She is sensible and believes that her milk cannot be good for lack of liquid elements. There is a bilious tendency of body and an irritability of mind that suggests colic, indigestion and Nux. I have found this: adapt the food and medicine for the mother, and you often cure the nursing child.

But this case presents dangers ahead. The mother's milk heretofore has disappeared when the child is six months old; so feed it we must, for a drying up of the milk fountain during the hot weather coming will be fatal to the infant. Again, I like a child to be partially fed, even when only two months old. I feel that when we have enlarged its pasturage, and usually, like a calf that has an extra supply, it grows more vigorously—is over-weight and measure. Another hint I have received: I do not try to make one food agree with all children. What food agreed with the other children? "Ridge's," she says; so that food is advised. It is useless to continue the Nestle's food if it is vomited after the gastric catarrh is cured. My diagnosis is made up of three elements: the vomiting, the great appetite and *the white tongue*.

I ought to add that the father is of a nervous temperament,

spare, evidently not a good feeder. Things do not run smoothly at home, there being more or less friction. These all affect the child through the mother's milk, making it less rich and sweet.

When I stop to think of it I do not wonder that Pædology is not often chosen as a specialty. There are more factors entering into the problem for solution than in any other specialty that I know of. Look at the influences bearing on the nursing child. Hereditary, ante-natal influences, temperament, domestic life, food, hygiene, ventilation, handling, etc.—all must be understood. He is a wise and heroic physician who chooses this specialty. If he has the necessary training and ability he will be skillful, successful. When he comes to measure and weigh the growing infant and is able to manage a child so that it exceeds the standard average, the enthusiastic pride of the parents will widen his clientele. I believe that if we had more enthusiastic Pædologists we would have more and better mothers.

Speaking of the average standard of weight and measure, I am convinced that it will be changed. In life insurance the American table of mortality has supplanted the European. So medical directors have come to raise the standard of average weight to height. I should like to get the monthly weight and measure of children all over this country, from birth to maturity. I believe the facts would interest us greatly. I hope to have a chapter on this subject in the new edition of my work on Diseases of Children, now in preparation.

1911

BUREAU OF CLINICAL MEDICINE.

O. A. PALMER, M. D., CHAIRMAN *pro tem.*, Warren.

C. O. MUNNS, M. D., Oxford.

J. C. FAHNESTOCK, M. D., Piqua.

FRANK KRAFT, M. D., Sylvania.

H. W. CARTER, M. D., Cuyahoga Falls.

SALOL AND PASSIFLORA INCARNATA.

By C. O. MUNNS, M. D., Oxford, Ohio.

My reasons for presenting these unproven remedies for the consideration of this Society cannot be better expressed than in the words of the venerable and eloquent Wm. T. Helmuth, when, in his "Sectarianism in Medicine," he said: "There are those who, while they believe implicitly in the formula *Similia similibus curantur*, as covering the widest field in therapeutics, are of the opinion that it cannot always be applied, first, because the materia medica is imperfect and, second, because our knowledge of it is insufficient; who believe that there are methods of curing disease other than the Homœopathic; who consider it necessary for the physician to understand as perfectly as the short span of his life will permit the varied collateral branches of medical science; who regard the welfare of the sick and the alleviation of suffering above mere adherence to a principle, and hesitate not if they are unable to find the similitum to prescribe what best they can obtain from the experience of any other school."

Salol.—Salol is a white crystalline powder almost insoluble in water, nearly tasteless, and has a faint aromatic odor. It is soluble in ether, petroleum-ether, alcohol, fatty oils, etc.; melts at 43° C. (110 F.). It is composed of 40 per cent. Carbolic acid and 60 per cent. Salicylic acid.

The advantages of Salol over Salicylate of soda, for which it is prepared as a substitute, are dependent on its almost complete insolubility in water and the juices of the stomach, consequently the better borne by weak and irritable stomachs, and on the ease and

completeness with which it is decomposed after passing into the duodenum, where it comes in contact with the pancreatic juice, and is broken up into its constituents, Salicylic acid and phenol. It is eliminated from the body as Sulpho-carbolic acid and Uro-Salicylic acid, and produces Carbol-urine.

Salol is an antiseptic, and an antipyretic in *large doses*— $\bar{3}$ ss or more. The antiseptic property of Salol quickly removes the *offensive* odor of the breath attending the indigestion of patients suffering from severe rheumatic pains.

I wish to call attention to the action of Salol in *Articular Rheumatism*, and, *especially*, in *Rheumatic Neuralgia*. It is not in chronic, but in *acute* and *acute aggravations* of *chronic cases*, or *comparatively recent cases of rheumatic affections*, where Salol gives the best results. One or more joints may be affected either with or without fever and swelling.

The action of Salol is not as precise and reliable in muscular rheumatism as in *articular affections* or *rheumatic neuralgia, sciatica*, etc. Tinnitus aurium may be produced by large doses.

Relapses may occur as after any other treatment.

Salol does not seem to cause any abnormal action of pulse or respiration.

Dose, five grains to one-half drachm. I generally give five or ten grains every hour until better, then increase interval between doses gradually. Small doses of Salol are too *slow* and *uncertain*; better give twenty grains than one grain.

A *thorough* and *lasting effect* is attained by continuing the administration of Salol in decreasing doses, for several days after all pain has ceased.

Passiflora incarnata.—Passion Flower. Natural order. Passifloraceæ. There are three varieties in this family: *P. coerulea*, *P. incarnata*, *P. lutea*. Genera 12, species 210, chiefly natives of tropical America. A tincture is prepared by our Homœopathic Pharmacies in the ordinary manner.

Passiflora seems to be especially adapted to derangements or disturbed conditions of the nervous system, as neuralgia, tetanus, tetanus neonatorum, chorea, insomnia, or sleeplessness.

For that nervous, restless, excited or wakeful condition found in so many affections, *Passiflora* has a wonderfully soothing effect, generally producing a quiet, restful sleep, from which the patient awakens refreshed.

I have used, recently, with *gratifying* results, the *Passiflora* (five drops in the evening, repeated if needed) to produce sleep in a little girl, eight years of age, who was suffering from chorea so marked as to greatly disturb her sleep, on account of the nervous excitement and continued motion. *Passiflora* is not a narcotic, and never stupefies or overpowers the senses. It is said to be almost a specific for tetanus in horses. I have used the tincture in from one to ten drop doses, and the lower attenuations. This remedy certainly deserves a proving.

DISCUSSION.

DR. ALLEN—We have something of a proving of *Passiflora* made by Dr. Winterburn, of New York. It yields a somewhat extensive range of symptoms, similar in many respects to *Cactus*, and individualization is going to make it by and by a very fine remedy.

CASE CURED BY LACHESIS.

By J. C. FAHNESTOCK, M. D., Piqua.

In making this brief report of a case, I do not intend to give you anything original, but a verification of symptoms found under the provings of *Lachesis*.

I was summoned in haste on the morning of March 4, 1884, to see a little girl aged eight years.

On entering the room, I saw the child lying on the bed, panting for breath, a blue look in the face, and lips purple.

The little girl wanted to be propped up in bed most of the time, and would beg to be fanned.

Unable to lie on her left side, she repeatedly put her hand up to her neck, which was bared.

I then asked her if she had any pain there ; she answered, "no, but I can not have my collar on or my dress to touch me."

I asked her why, when she hastily made the reply, "It will choke me and I can't breathe."

No appetite, no thirst, unable to sleep, owing to this labored breathing.

The heart was throbbing violently against chest wall ; a purring sound was heard at each heart beat. Her mother informed me that she had taken her to a number of physicians, and all of them pronounced it heart disease, and that only temporary relief could be given, and she was liable to die at any moment.

These symptoms had continued from her birth, being better and worse at intervals.

She never could go out and play with other children, and her mother had never sent her to school.

These symptoms being so marked, any homœopathic physician would have at once selected the proper remedy, but her former physicians being old school, did not know anything of Lachesis.

From the above symptoms I gave Lachesis, and improvement was marked in twelve hours.

No other remedy was given, and in one year from date she was entirely free from the trouble. Last week I met her on the street and asked her if she ever had any return of the old trouble, and she answered no.

DISCUSSION.

DR. WEBSTER—I am still using some Lachesis that I obtained in 1860, from Philadelphia. It was sent to me as the sixth, but I have run it up until it is now the forty-third.

DR. PARMALEE—Lachesis is indeed a peculiar remedy. For a long time I was under the sway of my preceptor, and did not use it, but finally procured a batch at the solicitation of a friend, who now resides in Ann Arbor, and began to use it and was surprised at the very prompt results. That was about the twelfth. I was surprised to find the very prompt effect it had in certain forms of disease of the heart in elderly women passing through what is known as the climacteric, but not in any woman that had heart disease. If the doctor reports his as a case of valvular disease cured, I say he is mistaken. Neither Lachesis nor anything else in this world will perform miracles, and it is only another fact that doctors are sometimes mistaken in their diagnosis. I don't believe that Lachesis, or any other remedy, will cure valvular disease of the heart.

DR. ALLEN—I must take exception to one remark made by Dr. Fahnestock, that almost any homœopathic physician would have prescribed Lachesis. He is not aware that there are a great many physicians who are in the same boat with Dr. Parmalee. They decline to use Lachesis. The original provings were made with the 30th, except some few, which gave us some of the finest provings possible in our materia medica. But because the drug was proved in the 30th, a great many homœopathic physicians refuse to use it. I must also take exceptions to Dr. Parmalee's statement that this was not a case of valvular disease of the heart. He also may have been mistaken. We should not pronounce a case incurable and then say, "well, if this was a curable case I would give Lachesis; but it is an incurable case, and, consequently, I will give opium or morphine."

DR. PARMALEE—Your opinion of the diagnosis of the case won't really make it neither incurable nor a curable case of valvular disease, nor even a functional disease of the heart.

DR. ALLEN—But my opinion is just as good as yours as long

as the doctor reports this case as cured after a number of physicians had pronounced it valvular disease of the heart.

DR. OWENS—I have cured one “incurable” case with Lachesis. My patient was a very jealous woman; whenever she got into any trouble or excitement about her family, or husband, particularly, she would have terribly severe attacks of dyspnoea, with indications that she was about to die. She would call in a doctor on every occasion. She was the wife of a dentist. I gave her Lachesis the first time—gave it in the 30th, and it didn't do her any good. I think perhaps it made her worse. She had been through the hands of two specialists in this city, who treated her for disease of the chest and throat. They pronounced it a hopeless case of organic disease of the heart. My second prescription was Lachesis 6th. I gave her one dose of it, and she has not had any trouble with her husband since.

DR. PARMALEE—I rise simply to defend my position. I do not say positively that there was no valvular disease of the heart. I say in my opinion it was not. I had the case of a lady 28 years old, the mother of one child, formerly living in Detroit. Child had died some eight years before I saw her. The profession at Detroit said she had organic disease of the heart, that she could not have another child, and she must not get with child again. After living in our city a year or so, she became pregnant. The physician whom she first consulted hurried over to Detroit with her; she was again examined and valvular disease diagnosed, and an abortion must be performed. On returning home she consulted yet another physician, who also insisted on an abortion, as labor would kill her. On coming into my hands I insisted that the woman did not have valvular disease, and agreed to prove it to her physicians. I invited the woman to lie down in bed and lie quiet for four hours prior to our visit; she did so. To that specialist's horror, the disease had escaped. The woman got up and walked across the floor; the lips would become blue when she would go

a little too fast, but on lying down and getting quiet, in half an hour that would all pass away. Now let me tell you what happened to that woman; that satisfied her and her husband that she could bear a living child, and in the course of due time she did have a pretty severe labor; she took a large quantity of chloroform, and is living and well to-day.

DR. ALLEN—I want to add just one word to what Dr. Webster said a few moments ago. He said he bought the 6th of Lachesis, and now it has become the 43d. That is a very admirable practice. When you get a remedy, whether it is the 3d or 43d, the 100th or the 5000th, and you find it works every time, keep it; when it runs down, fill it up with alcohol, put a few No. 5 globules in the bottom of the vial, and if your bottle gets tipped over or cracked, you will not lose your remedy; simply transfer the pellets to another bottle and add alcohol, and it will do your work until your head gets a great deal grayer than mine.

DR. OWENS—How did it happen that these other mentioned gentlemen agreed that this was a case of organic disease of the heart, and yet one dose of Lachesis cured it?

DR. ALLEN—I can't answer that.

DR. FAHNESTOCK—In reporting this case, you will notice that I did not state it was a valvular disease. I gave you the symptoms of a case cured by Lachesis, and it had all the symptoms of valvular disease.

DR. WRIGHT—In regard to the diagnosis of this child's trouble, which was pronounced valvular disease: could these symptoms not have arisen from a failure of closure of foramen oval? It seems that way to me.

DR. WALTON—In regard to running up the potency; fifteen years ago I procured the 30th graft of Lachesis, and I have filled it up from one to three times each year, and it is just as effective now as it was then.

VACCINATION VAGARIES.

By **FRANK KRAFT, M. D.,** Sylvania.

During the closing months of last year, and the early part of the present year, our community was considerably alarmed because of the prevalence of small-pox in two or three neighborhoods less than twenty miles from Sylvania. Vaccination became the order of the day, and the physicians of the county were kept busy. Some few only made use of the scab, while the majority used the ivory point.

My own belief touching the value of vaccination had been rather shaken by the reports which reached me from adjacent localities; and in my own family and two others I made use of Malandrinum, as recommended by my friend, Dr. Wm. Jefferson Guernsey, of Philadelphia. I sought to discourage vaccination wherever possible, but soon found my patrons had no confidence in the tasteless powders, and threatened to go elsewhere. In self-defense, therefore, I procured good ivory points, only one day old from the vaccine farm, and proceeded with the mutilation. Having been appointed vaccinating physician to our high school, I made use of over one hundred points, using them but once.

On February 4th, Miss X, æt. about 25, was vaccinated on the left arm with a perfectly new and clean point. During the first week no effect was apparent on the arm, the abrasion having dried up completely, and the lady went about her household duties unconscious of any vaccination, except that each morning an over-

powering nausea set in, which resisted all remedies, but happily disappeared of itself between 9 and 10 o'clock.

On February 18th, this lady called to say that the vaccination had proved a failure, and asked concerning a re-vaccination. In the conversation that ensued I learned that a little "boil" had been forming on the left breast, which was exquisitely painful and caused much unrest. On examination I found a small purplish spot as large as a pea on the under side of the pendent breast, which was painful to a light touch, but indifferent to rough handling. Thus I was enabled to discover that the "feel" was that of a large buck-shot under the skin, and was fairly movable. On entering into the family history I learned that one maternal aunt had died of mammary cancer; and I am afraid my treatment for the next four days was for cancer; and not till I saw this blue spot enlarge, become tumid, gather and discharge, did it occur to me that it was an instance of what might be termed vicarious vaccination. The matter discharged was frightfully offensive; before the wound in the breast finally closed, the arm opened and the blueness spread rapidly from the abrasion to the wrist joint. It was excruciatingly painful. This case finally yielded to Lachesis, for which I had the usual symptoms. The lady to-day is perfectly well, but the purplish scar remains in the breast and arm. Before this vaccination she had never had any trouble of any kind with the breast. Is this a latent cancer, and will it ultimately come to the surface?

On February 18th I had vaccinated a very fleshy woman, æt. about 47. The first few days there appeared no signs of the virus. On the 21st I was called in the middle of the night to see Mrs. B., who had been taken with so severe a paroxysm of coughing as almost to deprive her of life. On arriving there I found her lying prone, knees flexed on thighs and thighs on abdomen. Night-dress torn from the neck, the neck thick, hard and blue; asphyxia seemed imminent. I gave a few whiffs of Amyl nitrite, when the suffocation subsided. As soon as she could speak she told me that she had, at 7 o'clock that evening, been taken with so sharp a pain in the left groin that she fell to the floor in a dead faint; when restored to consciousness she began to cough, and when the cough

stopped she became suffocated. She was unable to straighten the limbs. I made an examination and found in the left inguinal region the same blue-purple spot I had seen but a day or two previous in the breast of my other patient. It was identical in feel and everything. My mind was still in the cancer groove, and I endeavored to get a cancer history, but failed. Here, also, the wound in the arm had closed. I was deeply nonplussed and vexed at my inability to construct some plausible hypothesis for the blue spot. I found Lachesis here also indicated, and gave it, with a local dressing of Calundula and absorbent cotton. As soon, however, as the breast in the former case opened, I knew at once what was the cause of this inguinal ulcer; and so it proved; it spread as large as a saucer, became highly inflamed, pointed, broke and discharged the same foul matter as the breast had done; the arm, too, opened, became blue and inflamed, and the abrasion discharged. This lady is well, but with a "dimple" in her left groin as large as a dove's egg.

On March 23 I was taken twelve miles north-east to see a peculiar case—one which I was told had puzzled all the doctors for miles around. I found a boy of 15, red-headed, freckled, strong and hearty, lying in bed, playing a mouth harmonica, the bed littered with books, pictures, remnants of food, playthings, and, in short, a small curiosity shop. I asked, what is the matter here? The boy blushed, looked at his mother, who said, "John will be here in a few minutes." When John came the boy removed the bed-clothing, and I beheld a male organ that would surely have weighed five pounds. The glans penis could not, I think, have been inserted in a tea cup, and the remainder of the organ correspondingly enlarged in diameter. The foreskin had retracted and was caught back of the corona glandis, which had swollen and become of the size of an inch rope. With all this congestion there was no pain in urination, no function of the body seemed impaired, and he only remained in bed because there was certainly something abnormal about him, and if he wasn't sick he ought to be. What was the matter? I made an exploratory incision back of the corona glandis, and was surprised to have the withdrawal of the bistoury followed by a jet of yellowish green pus. I taxed the youth

with indiscretions, which he strenuously denied, and I was compelled to believe. I diagnosed a specific paraphimosis and gave Mercury sol. Next day I returned and divided the foreskin, which gave some little relief. On this day the parents asked me if I did not believe vaccination might have brought this about. I colored with embarrassment when I recalled the two other mysterious cases, and yet had permitted this paraphimosis to trip me into a syphilitic diagnosis, and acting on this hint I examined the arm and found it, as in the two former cases, seemingly healed. Again I prescribed Lachesis, however, entirely empirically, this not being a blue surface, but a crimson red, there being no symptoms for anything except the general indications for Silicea, which I held in abeyance, desirous of seeing if Lachesis was not the epidemic remedy. And this was all he received. When last seen, some weeks ago, he was at work in the field, saying he was all right again.

There is probably a moral concealed in these three cases—I have had other bad effects of vaccination, but none so peculiar as these named—but I am unable to apply it beyond the danger of ivory point vaccination. Had the old-fashioned scab been used in either case, some apprehension might have been warranted as to the purity of the vaccine virus. Is it likely that the opprobrium which has been heaped on scab vaccination was really undeserved; that it was not the morbid product contained in the scab, but the constitutional taint in the individual which caused the appearance of dangerous diseases engrafted upon an otherwise healthy body? As we were not visited by the small-pox, I am not in a position to speak of the prophylactic value, either of the vaccination or the Malandrinum.

DISCUSSION.

DR. PALMER—About three years ago I had a similar experience, only a little worse. A lady came to me with a couple of little children and wanted them vaccinated because she was going where there was small-pox. Four or five days after vaccination

both of these children began to swell up all over. There were black spots all over the body and these kept on enlarging until each spot would probably fill a teaspoon. These finally came to a head. I opened them and some of them enlarged until they were as large as a teacup. One of these children has not recovered yet. One of them became deaf, the middle ear breaking and running. My own opinion is that that child was poisoned with vaccine matter. The other one to all appearances has recovered.

DR. ALLEN—In our city this year we had two small-pox scares. Of course everybody was being vaccinated and a number came to me. I am not a strong advocate of vaccination, consequently I told them I could give them a preventive equally as safe and efficacious. I gave them a few powders of Malandrinum. About two months ago another scare occurred. Several of these cases to whom I had given Malandrinum came to me and insisted upon being vaccinated, saying that they would go elsewhere if I did not want to do it. And lo! and behold not a single person to whom I had given Malandrinum "took" from the vaccination virus. It had no effect. I used the fresh points in each case. I knew the points were good. They were effective in other cases to whom I had not given Malandrinum. Now I perfectly agree with my Eastern brethren that Malandrinum is not only a better preventive than vaccination, but that it is much safer, and if a case of small-pox had occurred, that it would probably be the best remedy known.

RUPTURE OF THE DIAPHRAGM AND INTESTINE.

By H. W. CARTER, M. D., Cuyahoga Falls, Ohio.

Mr. B., aged 62, laborer, was injured while trying to prevent the fall of a thirty-foot ladder, October 24th, 1888. He was breathless for a few moments, but soon managed to get to a conveyance and was taken home. He says the foot of the ladder struck him over the pad of his truss. In my absence opiates were given by another physician to allay the pain. Eight hours after the injury I found the patient as follows: Severe pain in the right inguinal region, but no protrusion of an old hernia. Very sensitive over the cæcum; frequent calls but no stools; retention of urine. Pulse weak but not rapid; temperature below normal; respiration short, broken and irregular; frequent vomiting and occasional hiccough.

Diagnosis. Rupture of the diaphragm and injury to the intestine at the seat of the hernia, if not stricture of the bowel.

Prognosis guarded to await developments.

Remedies, Arnica and Colocynth. Without any decided increase in the temperature or pulse, the vomiting continued, as also the disturbed respiration and occasional hiccough.

The fifth day the bowels moved after a full enema and the outlook was better.

On the seventh day his army relic appeared with several stools like muddy water. Arsenicum checked this, only to be followed by

more pain in and above the old hernia, and rise of temperature and pulse.

Various remedies failed to control the retching and vomiting. Kreosotum ²⁰⁰ every two hours and nothing else but teaspoonfuls of hot water as often as he liked controlled it within twelve hours.

A return of the diarrhoea relieved the pain and restored the pulse and temperature.

In two weeks the frequent and irregular respiration was practically removed, although he continued to have at times that sort of broken or catching breathing.

He took nourishment with relish but his diarrhoea continued and he gradually grew weaker.

For two days before his death the temperature ranged from $96\frac{1}{4}^{\circ}$ to 97° under the tongue, although at the arm-pit it was less than one degree below normal.

As was expected, he died November 11th, and I have the privilege of giving you the results of an autopsy held on the 13th.

A pus sac between the right and left lobes of the liver, and also under the left. The right lobe of the liver was adherent to the peritoneum, and when detached showed a superficial ulcer three inches in diameter. Liver enlarged, but its substance in good working condition.

Some adhesions of the right lung. Heart normal. Between the pleural and peritoneal layers of the diaphragm, and at both sides where the fibres of the muscles had been torn from their attachments, a half ounce of pus was discovered. In the left omenta was another small pus sac.

Throughout the right inguinal and lumbar region the peritoneum was closely adherent to the omenta and intestines. On dissecting the peritoneum, fecal fluid was discovered which, when followed, led to a rupture of the cæcum one inch above and in front of the ileo-cæcal valve. The adhesions of previous inflammations had prevented the contents of the bowels from being discharged into the peritoneal cavity. When the bowels were checked the sac was distended, giving pain and increase of pulse, and when loose

the distention was relieved, as also pain and pulse were more normal.

Here, then, was the key to the whole condition. First, an injury, followed by adhesive inflammation, with diarrhoea, which was frequently renewed since the war. Thus the integrity of the intestine was weakened and a blow during a severe strain ruptured the intestine, at the same time the muscular fibers of the diaphragm were torn at each side.

My patient died from exhaustion, the consequent of the resultant diarrhoea.

What was the cause of the deposits of pus in the various places? Although a previous eczema might be taken into account, the exhausted condition was sufficient, vitality being so low that the necessary inflammation for purposes of repair were sufficient to break down the tissues, and all nature could do was to confine it where it could do the least harm.

What caused the continued vomiting? Was it from reflex irritation of the stomach, caused by injury to the phrenic nerve by the rupture of the diaphragm? It has seemed to me that it was reflex, but through the pneumogastric nerve and the source of irritation the intestinal rupture and consequent irritation of the peritoneum.

Why did Kreosote zooth control the vomiting? We might answer, because it was homeopathic. Its chief action is on the lymphatic system and the mucous membrane of the generative organs. It covers the nausea and vomiting where the trouble is reflex and the irritation is in the uterus or ovaries. It certainly acted like a charm in this case, after eight days of ineffectual work with various remedies. Here it was reflex, the stomach being all right and the serious irritation elsewhere.

BUREAU OF ANATOMY, PHYSIOLOGY AND PATHOLOGY.

N. E. WRIGHT, CHAIRMAN *pro tem.*, Berea.

INFANT DIET.

By H. POMEROY, M. D., Cleveland.

I trust that no member of the Society will take issue with the statement that from its earliest days, until nature has indicated by furnishing teeth that other food may be taken, the infant should secure its nourishment from its mother's breast. If, for any reason, this is not possible, resort must be had either to wet-nursing or artificial feeding; there is, however, no perfect substitute for the "mother's milk." It becomes the duty of the physician, when a case of this kind presents, to select the substitute which most nearly approximates the mother's milk in its nutrient effect. While wet-nursing may be considered a success in the majority of cases, still there are many difficulties connected with this plan, the most prominent of which are, perhaps, the danger of transmitting disease, and the necessarily great expense, which frequently places it beyond the reach of the average family; so the problem which really presents itself to the physician for solution, when an infant is deprived of its natural food, is, what shall take the place of the milk of the mother? This is frequently a most difficult problem to solve, for from improper food, inflammation, defective absorption and assimilation ensue, resulting in inanition and various disorders of the bowel track or cholera infantum; this mal-nutrition, of course, being due to the fact that at this time the digestive glands are only imperfectly developed, so that their secretions are defective in quality and quantity. Cow's milk is the most common and ordinarily the best substitute for human milk, still this must be modified to fit it for

the infant stomach. The suggestion recently made of developing, by selection and breeding, a race of cattle whose milk would approximate that of woman and thus be especially fitted for the nutrition of her infant, is scarcely likely to be put to practical use, as the result would probably be a vitiated secretion. Inasmuch as the principal difference between the chemical composition of human and cow's milk is, that the human milk contains more sugar and fat and less albuminoids, the result when subjected to the action of the gastric juice is that the cow's milk is rapidly formed into a firm coagulum (with difficulty digested), while the human milk slowly forms a flakey coagulum, easily acted upon by the stomach ferments. Various methods, with varying degrees of success, have been advocated, for overcoming this serious defect. To these methods it is not necessary to refer on the present occasion, as the scheme consists, briefly, in decreasing the proportion of caseine in cow's milk and increasing the proportion of water and sugar. Goat's milk is very much liked by many physicians as a substitute for woman's milk; indeed, in many cases it is admirable.

Condensed milk, which apparently agrees so well with many infants, is objectionable on account of the large amount of cane sugar which it contains, producing frequently acid fermentation and consequent diarrhoea. Of the various commercial foods with which the markets are flooded much might be said, but I will mention only one or two with which I have had some experience.

One preparation which in my hands has proved a success is Carnrick's soluble food. This is composed of the solid constituents of milk, with an additional quantity of milk, sugar and wheat, with the starch converted into dextrine and soluble starch. This is a much nearer approach, in its nutrient effect, to human milk than any of the preparations with which I am familiar, yet it is a well-recognized fact at the present time that a food for an infant under say seven or eight months of age should contain entirely the constituents of milk. The new preparation, "Lacto-preparata," is made, as I understand it, entirely from cow's milk, with the caseine partially digested, with pancreatine, the constituents being so

arranged as to resemble closely human milk. From the fact that there is much difficulty experienced in keeping milk foods, on account of the readiness with which milk fat turns rancid, if any considerable quantity is used, experiments have been instituted of replacing milk fat with cocoa butter. It is claimed for this form of fat that it will digest as readily as milk fat, while in composition it more perfectly resembles it than any other. Two points in relation to this preparation strike me as being especially commendable : the one is the actuality of the food, inasmuch as it requires the addition of water only to fit it for use. The other point is the fact that the milk is perfectly sterilized during the process of manufacture. My experience with this preparation has been quite limited, but from a physiological standpoint, it would seem reasonable to expect good results from it.

After the first set of molars have appeared, broths, baked potatoes, with milk gravies, soft boiled eggs, beef tea, milk-toast, well-boiled rice, etc., may be allowed. However, the full table diet should not be permitted until Nature has indicated by furnishing a full set of teeth, that the digestive organs are equipped and ready to carry on their proper functions.



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THE SEXUAL ORGANS OF A THOUSAND CONVICTS.

By T. C. MARTIN, M. D., Columbus.

Before reading my paper, I had best tell you how the convict is received. His reception is painfully informal. He is ushered into a large cage, hands and feet more than likely shackled. A guard searches him. Then he is taken to the prison gallery, where he is photographed; next to the barber shop he goes, and his beard shaved and hair clipped. After this, a bath is thrust upon him; in it, he loses his identity. To the clothing department now he is led, and supplied with new shoes, underclothing, and a most becoming suit of clothes. In the order of succession, he next visits the hospital. His family medical history is inquired into, and a thorough physical examination made. If the interrogation elicits that the man has a history of insanity, consumption, heart disease, and scrofula, we are of the opinion that the "con." is an old-timer and has "done time" before, and that he is now working for favor. The prisoner's heart, lungs, eyes, and reproductive organs are examined, the physique observed, and it is determined whether he is crippled. The medical officer on duty now sends a report of his examination to the warden, and suggests what kind of work the man cannot perform. From the hospital, the prisoner is marched to the office of the deputy warden. There his work is assigned him, and an examination, according to the Bertillion method of identification, is made. Finally, he visits the chaplain's office, his spiritual beliefs are learned, and the amount of education he has received noted.

It has been my duty to make a physical examination of the arrivals at the State Penitentiary during the past eighteen months. This has given me the opportunity to observe that in stature and body the convict is not up to the average; his conscience is more elastic than his muscles, and his reproductive organs are equally as abnormal as his morals.

In adopting a standard of comparison, the condition and not the size of the organ is considered. My observation satisfies me that the voice is a more reliable index to man's sexual development than his physique—the small man with a bass voice has a more complete development than the large man possessing a lighter voice, but Providence makes no discrimination when visiting upon them the surgical diseases peculiar to men.

Early discovering that normal conditions of the sexual apparatus are seldom found among convicts, I was led to investigate, and the result prompts me to present this paper. In preparing these statistics, however, I have classified as diseased conditions only those cases in which the pathological process is pronounced. How the convict's sexuals will compare with those of the man at large, I do not know, but leave it to my seniors to judge.

Of the thousand men examined, 787 were diseased.

The following table shows how :

(L. signifies left side, R. right side, and B. both sides.)

Varicocele uncomplicated, L. 192, R. 42, B. 134	368
Varicocele complicated with hypertrophied epididymis, L. 37, R. 19, B. 6	62
Varicocele complicated with hernia	22
Varicocele complicated with atrophied testicle, L. 9, R. 6	15
Varicocele complicated with hypertrophied testicle, L. 1, R. 1	2
Varicocele accompanying phymoses, L. 4	4
Hypertrophied epididymis uncomplicated, L. 122, R. 26	148
Hypertrophied epididymis attended with hernia, L. 1	1
Hypertrophied epididymis complicated with atrophied testicle, L. 2, R. 2	4
Hypertrophied epididymis complicated with hypertrophied cord, L. 12, R. 7	19
Hypertrophied epididymis complicated with hematocele, L. 3, R. 6	9
Hypertrophied epididymis complicated with contraction of cord, R. 2	2
Phymoses	32
Hypertrophy of scrotum	28

Monorchides, L. 2, R. 10	12
Hydrocele of scrotum	20
Hydrocele of cord, R. 4.	4
Hydrocele of scrotum complicated with atrophied testicle, R. 2	2
Hydrocele of scrotum complicated with scrotal hernia	2
Hypospadias.	4
Retained testicles (both sides)	3
Eunuch.	1
Orchitis	23
Normal conditions.	213

Varicocele is represented by 473 men. Nearly every man has a slightly varicose spermatic vein, but I have estimated only those that are marked. Of these varicoceles, 368 were unattended with other disorders. Some few of them presented themselves wearing trusses, and claimed to be "ruptured bad." One hundred and five varicoceles were complicated with other affections. Next to varicocele, hypertrophy of the epididymis has the largest representation, there being 183. Of phymoses there were 36. What I have classified as hypertrophy of the scrotum is a thickened condition of the bag's most dependent part, and not elongation. This condition I have never heard of or read of. There were 28 of these cases. So far as I can learn, the origin is congenital. Though there are no symptoms of pain or inconvenience, on my calling attention to the condition, each man has expressed anxiety to know the tendency, as the hypertrophy is progressive in character. I have never seen this condition manifest in an area to exceed two inches in diameter.

There were 12 cases in which the testicle had descended on but one side, and three cases in which the testicles had not come down on either side. I found 21 of the thousand examined with atrophied testicles. Those of one man, twenty-three years of age, were almost gone, had wasted to the size of a pea, in fact. This fellow had just been received on a charge of rape. He says he wishes he could have been guilty. The convict is an exceedingly unfortunate individual. One of the monorchides contracted the mumps, which involved his only capable testicle. It was removed.

Of the number examined, 433 had had either gonorrhœa or syphilis; 111 had had both.

I have noticed that, without exception, the prisoners sentenced on the charge of rape, sodomy, or incest have an abnormally small sexual development. Of the thousand men examined, 213 were possessed of reproductive organs of faultless construction.

Of the 787 diseased, 664 were cases of affection of either the spermatic cord or testicle. Of these 664, 385, or more than half, were affected on the left side, 139 on the right, and 140 on both sides.

Why this discrimination is made against the left side is a question. It is an accepted anatomical fact that the left spermatic cord is longer than the right. Some surgeons ascribe to this the etiology of varicocele, and sometimes to varicocele the cause of atrophied testicles, and so on throughout the category. It occurred to me that the prevailing cut of the trousers disposed man to dress on the left side, and that the trousers influenced the length of the cord by pressure. It also occurred to me that secondarily this pressure induced some of the conditions above classified. But, upon consulting works on anatomy written more than fifty years ago, years before the present cut in pantaloons was adopted, I find that even then the left testicle hung lower than the right. One of our eminent surgeons advances the idea that this condition of increased length of the left cord over the right is due to pressure of the sigmoid flexure. I was satisfied to accept this explanation until it fell to my lot to examine some Indians. These men were ever strangers to tight-fitting trousers. Yet I believe they have a right to the claim of a sigmoid flexure. In one-half of the number no partiality was shown to either cord, in 25 per cent. the left was the longer, and in the remaining forty the left cord was shorter than the right.

DISCUSSION.

DR. BECKWITH—I, for one, desire to thank the doctor for the facts he has presented to us. It is certainly original. Very many of the papers read here are gleaned from text-books, but this is

entirely original, and for this thorough investigation that has been carried on by the doctor I think we all should be grateful.

DR. PRATT—There is an Englishman who is investigating the subject, who claims that all insane troubles start from the sexual waste. The same law, the same nerves that control those parts, control the general man.

THE RECTUM AS A DISEASED CENTER.

By C. A. PAULY, M. D., Cincinnati.

The rectum is composed of muscular tissue in the form of longitudinal and circular layers, covered with a smooth mucous membrane thickly studded with follicles. Beneath this mucous covering, blood-vessels are found in abundance, but nerves of sensation are limited. At its lower opening, the rectum is guarded by two muscles, the external and internal sphincters; the space between them is called the "pile-bearing inch." These muscles are supplied by two systems of nerves. The external sphincter by the central or cerebro-spinal; the internal sphincter and walls above it by the sympathetic or organic nerves. The sympathetic system supplies every organ and tissue of the body. "It is directly related to the structures and functions of organic life." It is independent of the will, at work day and night, and its nerve cells are constantly kept charged with vital power by the influence of the cerebro-spinal system, with which it is so closely related, through the ganglia, located in front of the spinal column.

The nervous system is made up mostly of nerve cells and nerve centers. These components control, regulate and supply power to the organs and tissues of the body; they furnish these structures with nerve force, and give tone to their muscular fibres.

The nutrition and growth of the various organs are under direct control of certain nerve centers; should one of these centers become impaired or diseased, the nutrition and growth of the parts it supplies will suffer and finally become wasted.

The rectum, by its sympathetic nerve supply, is closely related to the various structures of the body. Any source of irritation at this point will cause trouble, through the sympathetic cord, in some other part. This organ is subject to many diseases, some of which prove quite serious and very destructive to it, without the slightest suspicion or knowledge on the part of the victim. The rectum is lacking in sensibility, and when sick or diseased it makes its sufferings known by speaking through organs abundantly supplied with sensory nerves. The liver, kidneys, or uterus may show symptoms of disease, and encourage a long course of treatment, when the seat of the malady can be found in the rectum, and is calling for relief through these sympathetic organs. An ulcer, seated high in the rectum, may not induce local pain or attract attention, yet by sympathetic reflex action it causes functional disorder of the kidneys. Kidney trouble frequently results from ulceration of the rectum. This condition is due to overtaxation of the kidneys in trying to excrete poisonous matter that has been absorbed by the blood from the ulcerated surface. Other organs and tissues may be affected by the same blood poisoning, and, when thus affected, the nerve centers by which they are controlled become impaired; hence, the nutrition and growth of the organs and tissues which they supply are lessened, and atrophy may be the final result. When the ulcerative surface has been cured, and all source of irritation removed, the reflex symptoms will disappear and the sympathetic organs will resume their normal functions.

The prostatic inch is the center of the reproductive system in the male. The internal os is the center of the reproductive system in the female. The pile-bearing inch is a center for disease in both male and female. Any functional derangement or abnormality of these reproductive centers cannot be permanently cured if there is irritation or disease at the pile-bearing inch. Remove the irritation at this point, and all reflex symptoms will disappear sooner or later.

The upper margin of the internal sphincter muscle is the seat of two important forms of irritation—pockets and papillae. The former was first discovered by Dr. Physick, and named “preternatural pouches or cavities.” He plainly shows the origin of these pouches to be, first, the formation of haematomata, the result of a small quantity of extravasated blood into the loose submucous tissues of the part, from the rupture of a venous capillary, caused sometimes upon violent straining efforts to expel indurated fæces. The contents of these small tumors may, under favorable circumstances, entirely disappear; but if the causes which first produce the tumors continue for a length of time, with the addition of prolonged irritation or inflammation of the parts, the covering of the tumors sooner or later becomes absorbed, or is invaded by ulceration, and their contents escaping into the anal canal, and the openings there made showing no disposition to heal or close, but remaining permanently open, are in reality what Dr. Physick calls them, “preternatural pouches or cavities,” and what Dr. Pratt terms them, pockets. The papillae described by Dr. Pratt are conical processes, varying in size and position. Each papillae is supplied by an artery that bleeds easily when snipped. Papillae may or may not be found with the pockets. These forms of irritation, when present, always cause contraction of the internal sphincter muscle, thus making great demands upon the sympathetic nerve supply, and affecting the circulation.

The body, in health, depends upon a free circulation. The circulation, for its activity, depends upon nerve force. The source of nerve force depends upon food and oxygen—the food in a liquid state, and the oxygen in the form of sacs, are carried by the blood to every tissue of the body, bringing new materials to the nerve cells with which it may replace its waste. The worn-out materials are destroyed by combustion, and the heat given off is converted into force, with which the nerve cells are charged.

The circulation is controlled by the vaso-motor system. These thread-like nerves supply every blood-vessel of the body, and when the nerve centers of the central or sympathetic system become impaired, a grave impression is made upon the vaso-motor nerves.

The circulation is changed. Nerve force is weakened. The blood-vessels become sluggish, losing their contractility and tenacity. Congestion of the organs takes place. The blood is not equally distributed. There is constant coldness of the hands and feet, congestion of the head and face, showing unsteadiness of the circulation and irritation of the nerve centers.

Pockets, papillae, ulcers, hæmorrhoids, diseased saculi and excrescences form a diseased center, which is the cause of all reflex troubles; by its removal, the spasm of the internal sphincter muscle is relieved, and the demands upon the sympathetic nerves are lessened. With the aid of thorough dilatation of both sphincter muscles, dry heat and massage, the circulation becomes normal, the blood is equally distributed, the irritated nerve centers are no more, the nervous system is free, and all is well.

[NOTE.—The address of Dr. E. H. Pratt was wholly extemporaneous, was reported in short-hand, and the transcript sent to the doctor for revision, but at the moment of going to press had not yet been returned. Dr. Pratt, at some length, entered into the philosophy of orificial surgery, explained its intimate relation with the nervous system, and described the processes used in detail.]

DISCUSSION.

DR. PALMER—Most every practitioner who has anything to do has this subject to contend with, and I, for one, think the doctor has done the subject justice. His connecting it with the nervous system was a great point. I have two or three cases on hand now in which I am positive the reflex influences are greater than the local trouble. In one case it is simply ulceration not larger than a three-cent piece, but she suffers all through the abdomen. She has been a sufferer for fifteen years, and has been treated by five or six of the leading physicians of the Western States, and, I am sorry to

say, by one or two homœopaths, and they have all insisted that it was the liver and the stomach; but she has all along carried the belief that if she could be relieved in the rectal region she would get permanent relief. The physicians who treated her could not find time to examine her. I discovered the trouble eventually. She was a very nervous, sensitive body. Since I have heard of the nervous connection with all these troubles, I have taken more interest in it than ever before. I advise those who have never paid any attention to it to give a little study to the reflex influences.

DR. SANDERS—The subject is one to which the attention of the profession has been of late especially turned, as all our journals are teeming with this matter. There are gentlemen who are cultivating this as a distinct department, with results that are of great advantage to the profession at large. That irritation of the sphincters, especially the upper sphincter, has been an unsuspected cause of habitual constipation of both sexes alike, I have long been impressed with. It is no uncommon thing at all to have cases say "Oh, I am all well except this habitual constipation." An infrequent movement of the bowels, once or twice a week, perhaps, or on the fifth or sixth or seventh day, is a very common statement, especially among women. I have come to the conviction that in a large per cent. of cases the difficulty depended upon the spasmodic contraction of the sphincter; and yet, at the same time, a permanent contraction of the upper sphincter; the patient herself or himself having no power over it in defecation.

TRAUMATIC TETANUS.

By G. W. MOORE, M. D., Springfield.

A thousand and one theories as to the cause of this formidable disease have been advanced by the profession, but, like rheuma-

tism, its real cause in the system is as yet considered quite uncertain. My own idea of the matter is that neither the brain nor spinal cord become the seat of the disease, but that the symptoms indicating such a condition are only reflex, as there are no evidences, or very little, of blood poison, inflammation, or even congestion of those organs shown by autopsies made of such cases. But, however, as we seem to live in the early morning of the days of great discoveries, perhaps we had best content ourselves, for the present, by trying to ascertain and practice the best methods of treating this most truly terrible condition, or disease, if it can so be called. The circumstances under which we labor in treating this disease are generally against us, as the wounds producing it are frequently of a slight character, and little attention is paid to them until trismus or tetanus symptoms are already manifesting themselves. Then about ten chances to one the physician is called too late to amputate with any probability of relieving the case, as amputation, to be successful, must be performed before the trismus symptoms are very far developed, and before the disease has developed far enough to produce spasms. If, however, the disease has advanced thus far before we are called, we must fight it out with such remedies as seem best to meet the case, and generally such fights are one-sided.

I have recently had four cases come under my supervision, and I will give them to you as they occurred, with treatment and results.

Case I. A young boy, about a dozen years old, caught his thumb in the machinery of a feed cutter, mashing the bone at the end and lacerating the flesh badly. He was quite mum about the matter, getting his mother to tie it up for him, while he insisted that it was not much hurt. About the fifth or sixth day the condition of the boy was such that the parents became alarmed, and I was sent for. Upon arriving at the house, some eight miles from my office, I found the patient decidedly nervous, with twitching of the muscles, and a decided soreness about the jaws, and an inability to open them but a short distance. I immediately placed the young man under the influence of chloroform, and amputated the wounded thumb. The patient rallied nicely and made a good re-

covery, the trismus and tetanus symptoms all passing away in a day or two.

Case II. A child seven or eight years old was wounded in the palm of the hand with a toy pistol. I was called in about a week after the accident, and found the hand badly swollen. The child already had tetanic spasms and decided trismus. I gave it *nux vomica* and *rhus tox.*, but it died in two days, of asphyxia.

Case III was almost a facsimile of case two—cause, treatment, and result the same, it also dying from asphyxia.

Case IV. A boy twelve years old ran a nail in the bottom of the foot. I did not see him for two weeks, when the foot presented almost a normal condition; no swelling, and the wound was healed, leaving a small cicatrix. The patient, however, had been having spasms for two days. The muscles of the extremities and the muscles of abdomen were all tightly contracted, *opisthotonos* decided, and a decided soreness about the jaws. As I saw no chance for relief from amputation, I put him upon *nux vomica*; no results. Then gave him *cannabis indica*, ten drops every hour, and from a sixth to a quarter of a grain of morphine every three hours. This treatment was kept up for a week, with apparently no results except that the spasms were not quite so frequent. At this time, a rash appeared upon the surface of nearly all the body, but was considered to be the result of the morphine. At the end of two weeks, he was put again upon *nux vom.*, but the morphine was kept up. The spasms grew less from day to day. The muscles gradually relaxed, and at the end of four weeks the boy could walk without help, and the appetite and sleep had about fully returned.

Now one thing further as to the treatment. If there is anything in *simillimums*, *nux vom.* is the remedy for tetanus. I once was called to see a man who had taken strychnine with suicidal intent, but, his courage failing him, he did not swallow quite enough to lay him out, but made an excellent proving of the drug. When called, I had about four miles to drive, and by the time I arrived his case had been passed upon and there was really no cause for treatment. The patient was lying upon his back, with his hand clinching the head-board of the bed, while his feet were

pressed tightly against the foot-board. The muscles were all tightly drawn, and any attempt to relax them would throw the patient into a spasm. Even passing the hand suddenly between the patient's eyes and the light would throw him into a spasm. When the hands were relaxed from their hold upon the bed, he would twitch and jerk exactly like tetanus. I did not observe any symptoms of trismus, but the other symptoms were so striking that after experimenting with him for an hour or more I concluded that in this proving of strychnine I had found the simillimum to tetanus, and that my patient had cured himself of a foolish desire to shuffle off this mortal coil.

RAILROAD SURGERY.

By O. A. PALMER, M. D., Warren.

For several years, I have been acting as railroad surgeon. During this time, I have found that caring for railroad injuries was somewhat different from general surgical work. The above fact is my reason for presenting a few general thoughts upon this subject. None but those who have cared for human beings shocked and injured in almost every conceivable way can understand the frightfulness of the sudden colliding of two fast-running trains. Without a moment's warning there is a crash, and the heavy rolling material has come to an instantaneous stop. Quickly we hasten to the wrecked train, and find all is confusion. The wounded and bruised are calling for immediate relief. Some are held in painful positions under splintered timbers, and crying to be extricated. Others have lacerated flesh and broken bones, while some were killed instantly. Very few are unhurt. If it is cold weather, some get thrown against hot stoves and severely burned, if not burned to death. The ghastly sights of a great battle are no worse than those presented by a railroad wreck, when both trains are heavily loaded with human beings.

The surgeon should hastily examine all, and attend to the wants of those most needing his care. Generally, a temporary dressing is employed till they are moved where a better application can be made.

In caring for these cases, I have noticed that part of them are pale and cold even in warm weather, while others are flushed and warm when the weather is cold. I have learned to think of them as cold and warm cases. The "cold class" are badly shocked, as a rule, and need warm wrappings and remedies to relieve congestion and establish a good circulation. They should be watched with much care, and not allowed much, if any, opium. A dose of morphine will kill many of these cases. They get "backsets" very easily, and you can never tell just what is coming next. The injuring forces are so violent that they render life very uncertain. To illustrate, I will give some of the particulars of a case I had in charge some years ago. Mr. D. was badly shocked and bruised in a collision, and when I saw him, which was about one hour after the crash, he was pale and covered with cold sweat. All the internal organs were congested; pulse very feeble; a little sick at the stomach; unable to stand or sit up. After a hot bath, he was put to bed, and hot things were kept around him. For a few hours, everything looked favorable for his recovery, but soon it could be seen that the vital forces were unable to longer sustain life, and, in spite of the most vigorous means for relief, he died in a few hours. A surgeon who has cases of this kind should give a doubtful prognosis, when pressed for an opinion. No operations should be attempted, but the case should be kept in the most favorable circumstances until it can be determined whether he is going to react; if he does, he should receive every surgical care. If there is no reaction, death soon ends his earthly existence.

In cases where the skull is fractured, and a spicula of bone is pressing upon the brain, it should be immediately removed, as it may be the greatest cause of the depression. Persons who have used alcoholic liquors for some time generally die when shocked to any extent or injured, as most cases are in a railroad collision.

The warm class are better cases to handle, and we feel pleased

with results, as a rule. Inflammation may run high, but it is overcome without much trouble. They have a good hold on life, and the vitality they have left insures favorable results. Cool applications should be used on the injured parts, to reduce inflammation. Internally, I usually give arnica or ferrum phos. This class of cases will endure early operations. I have operated on many of them, under the most unfavorable circumstances, and had good recoveries without antiseptic precautions.

It is not an easy thing to determine just what to do with many railroad injuries. In many cases, there are complications. There may be extensive laceration of the flesh, and severe punctured wounds. The frantic friends beg for an opinion, and are not satisfied until something favorable is learned. Experience has taught me that it is best to be conservative, and it is very seldom that I promise much.

Nausea and vomiting may be the cause of much trouble in badly-shocked cases, but if they react quickly they generally recover. It is a good omen when lacerated wounds bleed well, as there is less danger of gangrene. I am often at a loss to know what to do when much tissue is crushed, and there is considerable shock, especially if the patient has a small amount of vitality. We are obliged often to run great risks in handling this class of patients. Do not consider them well until you know they are cured.

If an injured person has used alcoholic liquors to a considerable extent, delirium tremens may come on anywhere from the fifth to the tenth day, and destroy a somewhat hopeful case. Extensive sloughing may take away large masses of flesh, and place the patient beyond any hope of recovery. The sloughing may go beyond the mutilated region, and seem to destroy sound flesh. I have seen hands smashed between the bumpers that looked quite natural, but really were nothing but a bag of broken bones and jelly-like tissue.

Grim death will show himself if amputation is not immediately executed. If you see "rigors" in these cases, you may conclude that the "tetanic grip" is not far away.

If a case is progressing finely, and a chill comes on suddenly,

followed by high fever, with no special local changes, death is almost certain.

If we notice a bilious color or a yellow tinge to the skin, it is generally safe to conclude that pyæmia is going to do the case much harm, especially if coma comes on. An abscess may be forming somewhere in the body. Often a tender spot can be found, indicating local suppuration. Parts undergoing destruction should be carefully watched and kept open and clean.

DISCUSSION.

DR. MONROE—What little experience I have had in railroad surgery there seemed to be in most cases an element of defective nutrition, defective nerve power, due oftentimes to the concussion. It seemed as though the sensitive, tender, neurilemma had lost its power—its functions are always somewhat impaired by a severe jar; especially is this true, of course, in injuries about or to the spinal column and brain. I remember one case I had in a rolling mill, where a man had been thrown on his back—had been scraped along the track by the tender of an engine. He held on to the cow-catcher, and didn't go under. I was called in, and detected nothing except that the skin of the back was scraped off. I gave him a favorable prognosis—that it was the shock, the scare, that needed to be treated a little. In a day or two, he got so he couldn't pass his water, had to use a catheter; then he lost the sensation in his limbs a little, and he seemed, instead of improving, to be getting a little worse, and finally died of what seemed to be exhaustion. I want to ask the doctor if in most cases of railroad surgery there is not an element of that sort, and to ask him if such injuries are repaired as promptly as injuries that come on in ordinary life.

DR. PALMER—My experience is that there is a tendency to sink, and some just seem to go down in spite of everything you

can give them. I have come to believe that alcohol is no stimulant, but rather a narcotic poison. I found that all the restoratives of that kind that I could give, in cases not too badly shocked, that I could get them off after awhile; but I also found that they didn't recover good, and they are liable to die. You can't be certain what is going to happen. I have got so that I feel there is danger ahead all the time, and in some cases they never fully recover. We have two or three such cases on our list now. The superintendent came to see me and said he would give several thousand dollars if those cases were off our hands. Any expert railroad surgeon will testify that life in such cases is uncertain. In regard to the use of alcohol in these cases, as I said before, I am no believer in it. Alcohol is not very easily digested; when taken into the body it will destroy oxygen just as fast, as well as the water, as it will on the outside. I think the man who will give whiskey in pneumonia does wrong. This alcohol question is one of vital importance, and I would like to hear that discussed.

DR. BECKWITH—My friend knows more than Carpenter, who says that alcohol is a food. He is progressing very rapidly. The oldest man on record to-day alive is the man who took wine three times a day all his life long. Some years ago, my brother and myself had charge of all the railroad surgery in our place. We attended all the accidents that occurred in railroad machinery, and railroad car, and all other forms of railroad accidents. The first symptom in most all of the cases would be a chill, which a few drops of whiskey invariably dispelled and recruited the sufferer. We found that we could bring our patients into better condition by the use of alcohol. What the railroad surgery is now, I don't know. There may be something better than alcohol. But I know perfectly certain that my brother was as successful in railroad surgery as they are to-day. Where we found great pain and suffering, we put them under an anodyne. It seems cruel to allow a patient to lie with a broken arm or leg, when he could be quieted with a quarter of a grain of morphine. It wouldn't hurt him a bit. And how a man, like my friend who has just spoken, can practice railroad sur-

gery without using anodynes, I don't understand. You all know that where you find a man that has received a severe shock, that alcohol will restore him to a certain extent. I look upon this theory that my friend is advocating as a fallacious one.

DR. MONROE—I believe this matter of alcohol can be settled. It has a dual action. The primary one is to flush the capillaries of the body and rest the heart. The heart doesn't have to work half so hard after a small dose of alcohol, for an hour or two, as it does before. In a state of collapse the capillaries are almost bloodless. You get there the physiological effects, and I don't know of any other drug in the world that will do that. I believe in those cases where you repeat your doses of alcohol you do harm. I think that Dr. Palmer and Dr. Beckwith are both right and both wrong.

DR. PARMALEE—There is one peculiar fact in regard to these cases of accidents upon railroads, especially among the lower classes of people, as to the sequelæ which will follow on symptoms of an apparently small injury. I have come to the conclusion that if the patient has been accustomed to drinking beer to any extent you will have bad results. There will be lymphangitis, from the absorption of poisonous matter; abscesses will form, and your patient will be very apt to die slowly because he had been an habitual beer drinker. Now, I don't think that is true of persons who drink whiskey, nor do I think it is true that whiskey or brandy is at all out of place where a person is suffering from severe shock. I think that the doctor's strictures about the application of morphine are perfectly true. They are not true in operative shocks, so much, for there you can give a person a hypodermic injection of a half grain of morphine, after an operation, where he wouldn't bear it in the primary shock which an injury has given to the patient. After all, the point I wanted to make was that in all accidents ascertain whether your patient has been or is a beer drinker, and if so, modify your prognosis, for ninety-nine times out of one hundred he will get you into unsuspected trouble.

DR. OWENS—In army surgery, they were somewhat in the habit of using morphine very largely, to relieve the pain from the wound. That was finally abandoned on account of the depressing effect and the tendency to fatal result. Afterwards, they always resorted to stimulants, whiskey, and so forth, until the reaction was re-established during the shock. That was abandoned after the shock was well passed. Now, a suggestion has been made as a substitute for whiskey or brandy after injury. If you want to establish the circulation, relieve the patient from shock as speedily as possible, you will secure that result by giving five to ten drops of the tincture of jaborandi, and in ten minutes there will be copious perspiration and your patient will be in a very much better condition than he would have been under whiskey or brandy.

DR. PALMER—What Dr. Beckwith said in regard to the use of alcohol and whiskey and morphine in fracture cases is true enough. We use it often that way. I don't mean that any one shall be allowed to suffer; I mean in the promiscuous use of these measures for relief. Jaborandi I know to be a good remedy. I have used it in five or six cases. . You get a case that is quite chilly, that can't sweat; you give jaborandi and you will be surprised with the result. I generally give about five drops in hot water, and heat up the feet and limbs and back.

A NEW METHOD OF AMPUTATION AT THE ANKLE JOINT.

By JOHN DEETRICK, M. D., Youngstown.

The title of my paper is, "A New Method of Amputation at the Ankle Joint." First, let me notice other ankle joint amputations, at least by name. They are numerous even without their modifi-

cations and improvements: Syme, Chopart, Pirogoff, LeFort, Malgain, Roux, Ferguson; modified and improved by Hancock, Bruns, Gunther, Esmarch, Tripier and others.

Removal of the entire foot at the ankle joint is vaguely referred to by Hippocrates, and subsequently by Fabricus Hildamic, and it appears to have been occasionally resorted to by surgeons, among whom may be mentioned Sedillier, Rossi, Baudeus and others. Professor Syme, of Edinburgh, in 1842, introduced a new method of operation that was recognized by a general acceptance, and is the base of all ankle joint amputations; all others are improvements and modifications. I prefer not to trespass on your valuable time by describing, or rather attempting to describe, the mode of operating practiced by Chopart, Pirogoff, LeFort, Malgain, Ferguson, Roux, or the improvements of Hancock, Bruns, Gunther, Esmarch, Tripier, Gibson, and many others. I will now attempt to describe the mode of amputation at the ankle joint, which is the subject of this paper.

Place the patient upon the back upon a level operating table or chair, with the foot at right angles to the leg. Now begin the upper or dorsal incision at the lower point of the internal malleolus; continue this incision at right angles with the ankle, cutting through the integument, tendons and articulation to the astragalus articulation with the scaphoid bone; continue the line of incision around to the external malleolus. The lower or plantar line of incision is opposite the dorsal articulation of the scaphoid and cuboid with the astragalus and os calcis bones, carrying the line of incision from the internal to the external malleolus through integument, tendons, muscles, ligaments and articulations to the astragalus bone. Now flex the foot towards the leg and separate the astragalus and os calcis articulations, always using extreme caution to keep the edge of the scalpel next the bone surface, to avoid the posterior tibial artery and its numerous branches.

Next, flex the foot and separate the astragalus articulation of the tibia and fibula, and their internal and external malleoli, using the foot when possible as a lever, to assist the disarticulations. Use care not to cut the achilles tendon or to button-hole the flaps, and

be extremely careful to avoid wounding the arteries already mentioned. When the disarticulation is complete, bring the os calcis forward between the internal and external malleoli, and, if need be, to adjust nicely, trim the tuberosity off the os calcis with cutting-bone forceps. Use extreme care to trim neatly and not to leave any spiculæ of bone to cause continued discharge. Adjust muscles, integuments and tendons neatly; use torsion or compression with hæmostatic forceps to all bleeding arteries. Insert a small perforated drainage tube and then run in the sutures. *Cleanliness*, with antiseptic precautions, is absolutely necessary. Apply suitable dressing. This mode of amputation has the following advantages:

The union of the dorsal and plantar muscles and tendons gives extension and flexion to a certain extent, and consequently considerable motion, at the will of the subject, and much more when walking and running, for there is motion of the joint; the os calcis being brought directly in line with the leg, divides the weight; the plantar surface of the os calcis makes a good cushion; the limb is shortened only about one inch, and by raising the heel, stuffing the toe and using a high-laced shoe, the patient can walk, run and jump without using crutch or cane; and can dispense with an artificial foot, which is an item of great importance to many unfortunates, who can thus avoid the expense and annoyance of one.

This is not a theoretical method of amputation. It is one of practical experience, and has all and even more advantages than I claim for it. At the meeting of the Northeastern Homœopathic Medical Society in April, 1888, I had the pleasure of showing the members present one case of this mode of operation.

In conclusion, I will say that this method of operation is original. I have never seen or heard of its being performed, and trust the surgical fraternity and their patients will receive the benefit.

BUREAU OF OBSTETRICS.

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ABORTION AND ITS TREATMENT.

By W. HOYT, M. D., Hillsboro.

By abortion, we mean the premature expulsion of an immature product of conception. By most writers, if it occurs before the sixth month or previous to viability, it is called abortion, and after that period premature labor.

As to its frequency, it varies with different physicians according to the location, fashion, nationalities and religious beliefs of his or her patrons. More cases occur among the wealthy in modern fashionable society, and among the immoral and those who wish to hide their shame. In some localities scarcely a child is permitted to see light, while in others very few premature children are born.

Among the foreign population, especially in the Romish church, be it said to their credit, very few except unavoidable miscarriages occur. According to statistics given in Churchill's Midwifery, printed in 1860, "out of forty-one thousand six hundred and ninety-nine deliveries, five hundred and thirty, or about one to seventy-eight were abortions." In my own practice the per cent. has been much greater, being about one to thirteen, and by its frequency, I am led to believe that many cases should be classed as avoidable, although nearly all patients protest "that they do not see what caused it, and are very sorry it has occurred," etc. They may not *see* what caused it, but many are more guilty than they would lead their physician to believe.

As to the causes in the unavoidable cases they are almost innumerable; but as I propose to deal with the treatment mainly, I will only refer to a few of the principal ones. Ill health may have its

influence, although it is sometimes almost wonderful with what tenacity the womb retains its hold upon a foetus, although by so doing the mother may be giving her very life for that of her offspring. Habit may be a leading cause. Some women acquire the habit of abortion from repeated intentional or unavoidable miscarriages until the occurrences so predispose the system to a repetition that it is impossible for her to pass the usual period, and from that time the fiat has gone forth that "hereafter thou shalt be childless." Leucorrhœa, arising from disease of the lower third of the uterus, such as inflammation, induration, fissures, laceration with or without cystic degeneration, beginning of cancer and syphilis may be causes of which the patient is often ignorant.

As to treatment, it should be preventive first, and if that fails use every means in our power to completely empty the uterus as early as practicable with the least suffering and greatest safety to the patient. A hemorrhage is not necessarily fatal to the foetus, as we occasionally see frequent free hemorrhages from the uterus during the early months of gestation, and the patient go on the full time and pass through labor without any other unnatural symptoms. Neither are pains or even a slight dilatation of the os positive signs that gestation will not go on through the allotted time; therefore in such cases we must wait and make haste slowly; we must do our utmost to save before we do anything to encourage the destruction of a living embryo.

In case of threatened miscarriage, we should put our patient in bed, and insist upon absolute rest and quiet; administer the indicated remedy and await developments, which may come very soon or it may possibly be several days. If the os is sufficiently dilated for the membranes to protrude much, or if the membranes are ruptured, of course abortion is inevitable and we must direct our energies towards making it as safe and easy as possible.

Some writers upon the subject will tell you "as soon as the os is dilated or dilatable, remove the foetus and membranes at once," and they say the latter may be removed with the finger, curette, spoon or placental forceps.

Now, please consider it easier said than done; that it looks more

feasible on paper than it really is in actual practice, and that after all it is no easy matter to use these instruments successfully in every case. In a majority of cases it can be done with very little trouble, while in others it will be very difficult, and will tax the ingenuity and skill of an expert, it being nearly impossible, and perhaps a dangerous operation.

In some cases after the foetus and a part of the membranes have been removed, the decidua vera will persist in remaining out of our reach. I believe we should exercise great care and not let nature do all she will in a reasonable time before we interfere, but we can easily overdo the waiting, and right here requires good judgment and careful discrimination. If a portion of the membranes or foetus protrude from the os the temptation is very great to undertake its removal at once.

If the decidua vera has separated from the uterus, we will find it a very short and easy operation; but if separation has not taken place it may be extremely difficult; therefore we should wait until the pains have forced the mass well down into the cervix before we do any violence to the membranes, because as soon as the foetus or a part of the membranes is removed, the uterus appears to lose its power over the small mass, and we are left with but two alternatives—the dangerous one, that of letting it decompose or dissolve and pass off in the discharges, and thereby subjecting our patient to the dangers of irritative fever, perimetritis, septicæmia, phlebitis, etc., or that of removing them by operative measures. I believe if a portion of the membranes or foetus protrude from the os and the bag of waters remain intact, meddlesome midwifery is exceedingly bad and may even be dangerous in its results.

Here we must wait, unless the pains have forced the foetus and membranes well down into or out of the os, unless there is a hemorrhage or some symptoms requiring haste. The better rule is to wait until the pains come on, and, if they are too long delayed, tampon the vagina tightly, using plenty of vaseline or some oily preparation on the tampon to make it impervious to blood, thereby preventing any possibility of a hemorrhage, and we can then well afford to wait. I do not mean that it is necessary to stay with our patient,

but go about our business and return to our patient when it is necessary to remove the tampon, for usually after ten or twelve hours upon examination we shall have the extreme satisfaction of finding the membranes detached, and their removal will be but a few moments work. The same rule will usually hold good even if the membranes are ruptured and the foetus has escaped, even if only a part of the membranes remain or small pieces that may have eluded our grasp and remained in the uterus, we will in nearly every case succeed with the tampon in bringing the last piece within easy reach.

I believe the tampon is one of the best and safest for all cases, although we may occasionally find a case where nature and the tampon will not be sufficient; then, of course, we must resort to the use of instruments of some kind. As to the best for such purposes the finger is the only one with feeling and intelligence to guide it, and is the safest as far as it can go. If from the depth or position of the uterus it fails, we must resort to the use of some other instrument, of which the wire curette in all hands is probably the safest.

A two months' embryo may be removed by the curette, but after that time the ovum is too large to be removed in that way, but the decidua vera may be removed by the curette. When we commence we must make thorough work; and never dismiss a patient until we are sure that every part of the foetus and membranes are out of the uterine cavity. The old adage that "any thing worth doing at all is worth doing well" holds good in such cases, and we should never, under any circumstances, slight a case of this kind.

A word in regard to the after treatment may not come amiss. A patient after abortion should be kept in bed and take the same rest as after a labor at full time. No doubt many women date their weakness and ailments to a particular abortion, and the real cause may not be the abortion, but the want of rest and care afterwards.

POSTURE IN LABOR.

By J. C. SANDERS, M. D., Cleveland.

This subject will be considered under three divisions: 1—The posture best suitable to the first stage; 2—the posture best suitable in the second stage; and 3—the posture best suitable to the third stage, and in their order.

1—The posture best suitable to the first stage:

Hardly upon any other subject in obstetrics is there entertained so diverse views or enjoined so diverse a practice. Some physicians counsel and keep their parturient patients nearly all through this stage on their feet, tramping about the room, or in sitting posture, or in knee posture, and give them little or no opportunity to lie down and rest; and there are others who will confine their patients rigorously to the bed, hardly permitting them to rise for purposes of urination or defecation.

The most suitable posture is hardly the golden mean between these two extremes, but may be more correctly stated in this general proposition that the place for woman in labor is in bed, where, during her pains, she can be made as comfortable as anywhere, and where, in the intervals of her pains, she can secure the most rest and sleep. In the stage under consideration, she should be at liberty to choose that posture in bed which she may find to be the more comfortable, whether on right side or left side, or on her back. She should not be allowed to keep either one of these postures fatiguingly long. In case this stage of labor is unduly protracted as in labor called tedious, this rule may be temporarily departed from by allowing a sitting posture in an easy chair for a little space at a time, or a standing posture even for a few moments,

or a position on the knees, a favorite position with some women, also for a little time ; provided always that the membranes are unbroken, for if broken none other posture should be permitted than the horizontal one, according to the general rule as above expressed. This rule applies to labor with natural or preternatural presentations. It should be especially emphasized in case of hemorrhage. The argument urged in support of an indiscriminate liberty of movement, and allowing a parturient woman to tramp around her room and take any position her caprice might choose, is predicated upon the assumption that such freeness of movement acts as a stimulant to the pains and thereby hurries and shortens this stage. From an extensive inquiry as to the truth of this assumption, I am satisfied that it is true only exceptionally, and this rarely. The almost universal testimony is that it does not make the pains any more effective in accomplishing dilatation, but more distressful to bear, by greatly aggravating their associated suffering.

In case of rigidity of the os margin in what is called undilatable os, it is claimed by some that the vertical position, as in sitting or kneeling, contributes to the dilating process by just so much as the added weight of the uterine contents, whether the foetus alone or the foetus with the waters, would conduce to the dilatation. It cannot be denied that the added weight upon the os margin would be considerable, yet when we consider the fact that dilatation is essentially a vital act and not a mechanical resultant, we can better understand how disappointing this postural suggestion often proves. It has disappointed me so many times I have no faith in it at all. I permit this posture only as a temporary rest from the tedium of the general horizontal decubitus.

But apart from the aggravation which the vertical attitude, especially with the patient on her feet and walking about the room, puts upon the associated suffering of the pains proper, the great objection is the liability prematurely to break the membranes, and prolapse the cord, and thus lay an unnecessary and possibly endangering complication upon the labor. The premature breaking of the waters might imperil the babe by imposing delay, and

the rush of the waters dependent on the vertical position might carry the cord down in prolapse, one of the most imperiling accidents that can befall the safety of the fœtus.

2—The posture best suitable to the second stage :

Surely as soon as this stage is entered upon the parturient woman should be rigidly limited to her bed, and her decubitus so regulated as to give her all the advantages possible to the mechanism of delivery. In whatever position she may lie, on left or right side, or on her back, her body should be so flexed upon her hips, or pelvis, rather, as to secure as near as possible a coincidence of the long axis of the fœtal body with the axis of the plane of the brim of the pelvis, in order to secure an unobstructed earliest possible engagement of the presenting part of the child within the pelvis. This is a point of the first consequence practically, and yet proves to be too little heeded. I have no doubt that lack of attention to this mechanical fact explains many cases of undue prolongation of this stage, with its inevitable unnecessary suffering and waste of both the uterine and voluntary forces; indeed, this waste of power and shock of added suffering may lead on to powerlessness and the necessity of artificial delivery.

After full engagement has been secured, the decubitus of the patient should be regulated by the position of the fœtus in utero, whether the head or breech is leading. If the position be, assume now the head presenting, either of the occipito left lateral positions, the first or fourth position, the decubitus should predominantly be on the right side, and variations from the position should be only for relief and transient rest from tedium. On the contrary, if the position be either of the occipito right lateral positions, the second or third, the decubitus should predominantly be on the left side, and variations from this position should be only for relief and transient rest from tedium. This rule of practice is predicated on the mechanical facts that these varied postures, on the left side for the second and third positions, and the right for the first and fourth positions of the child's head, maintain the greatest possible anterior flexions of the child's head, and thus to the greatest possible degree promotes the conservative conversion of the

third position into the second, and the fourth position into the first. It is now conceded that the lack of proper flexion of the head is the key to nature's failure to effect these conservative rotations, and that the province of art in attempting to secure these rotations lies chiefly in the effort to restore to the head its impaired flexion. I have no doubt that a proper regulation of the decubitus, by the above rule, from the moment engagement of the head takes place within the brim, would not only secure the conversion of these occipito-posterior positions unaided by any other art, but would make more rapid the descent of the head through the pelvis, by maintaining the greatest possible flexion of the head and securing thereby the least possible waste of parturient force.

Soon as rotation is complete and the head is in transit through the outlet, the left lateral decubitus should be resumed, if it had been changed to any other posture, and maintained until this stage of labor is completed, for this position gives better opportunity for the care of the birth of the head and shoulders through the soft parts, and of the soft parts themselves, especially the perineum, and puts the woman in condition least liable to do harm to these structures, by lessening somewhat the activity of her labor forces. The exception to this last proposition would be where the perineum was especially rigid and undilatable, in which case it would be well to enjoin the back decubitus in order to secure the unabated force of the pains upon the rigid tissues until these tissues had given up their resistance largely and had become so mellowed and dilatable as not much longer to resist the escape of the head. When this had been attained, the left lateral decubitus should be resumed and maintained until the completed birth of the child.

The main general proposition applicable to the regulation of the posture of the parturient in head presentation in this stage, whether the vertex or the chin leads in delivery, applies with equal force in case the presentation is the breech, up to the time that the breech is pressing upon the perineal floor. From this time on to the completion of the second stage, the posture is of the first consequence. If the breech is in either its first or second position, the lateral posture, left or right, renders readily accessi-

ble the breech and the other portions of the child's body, its cord, its shoulders, and lastly its head, and the easiest use of instruments, if necessary for the prompt delivery of the head, in case the child is jeopardized by delay.

But if the breech is in third or fourth position, unconverted, then the lateral posture is indispensable to the safety of the child, for with the face of the child to the inner aspect of the pubis, the back posture persisted in or maintained would be unavoidably fatal to the child, with the single and rare exception when the chin could be carried up above the inner face of the symphysis, and the neck of the child could be so pushed on the anterior face of the symphysis as to allow the vertex to sweep down and over the sacro-coccygeal and perineal plane and be made to escape over the fourchette. I doubt strongly whether a child delivered by this manipulation of reversal of the occipito mental diameter was ever born alive, except the child had been premature or exceedingly small, or the maternal pelvis had been extraordinarily capacious.

The decubitus most suitable for artificial delivery, whether by version or instrumentation, is beyond doubt the back posture, the patient lying athwart the bed, with the obstetrician directly in front of her. The Cæsarean section would demand no exception to this decubitus.

3—The posture best suitable to the third stage.

This is unquestionably the back decubitus. If the second stage is completed with the mother in either right or left lateral posture, as soon as the child is separated from the mother, she should be at once changed to a back posture, with her limbs flexed upon her body so as to give relaxation to the abdominal muscles, and made comfortable in this position. If the child is born with the mother already in this position, the position should be maintained.

This posture for the third stage, and indeed for the most part of the lying-in, has many advantages. They are almost self-evident, and yet there is now and then a practitioner who will permit the mother to continue on her side all through this stage. They may be stated as follows: 1—This posture gives relief, in case the mother has been lying for some time on her side, as is ordinarily

true in the closing of the second stage, from the tedium of this posture; 2—it is the posture that gives the most universal rest to the entire body, especially the visceral organs; 3—it brings the vertical axis of the womb into an approximate coincidence with the vertical axis of the abdomen, and of the superior strait, and thereby contributes to the unembarrassed coördination of the uterine forces, and gives opportunity for the full play of the voluntary forces as these may be required for the placental expulsion; 4—with the womb in this position, the weight or gravity of the placental mass favors not a little its detachment, and delivery from the womb; 5—this posture gives the largest and freest opportunity for abdominal support always proper, and often highly important, and for the manipulations of art for the successful completion of this stage, when necessitated by exigencies of the case; 6—it is the best posture in which to meet the contingencies of the hemorrhage, which sometimes immediately follows upon the completion of this stage, dependent upon the failure of the womb normally to close up its channels of blood escape from any cause, appreciable or inappreciable.

DISCUSSION.

DR. PALMER—What is Dr. Sanders going to do with a case that insists that she cannot lie in certain positions because it hurts her so? I often find after determining the presentation that the position occupied by the woman makes some difference, but when I order them to lie in any particular position, they will say they would like to lie over there, but they can't do so with any comfort. I am usually obliged to yield to their wishes. Is that right?

DR. SANDERS—The cases that I insist upon are in these bad occipital positions. It is infinitely better for the woman to put up with the temporary discomforts, rather than to face the mechanical disadvantages that may result from the third or fourth position until you get the vertex turned into the hollow of the sacrum.

DR. MONROE—The only case I ever had in which the cord was around the child's neck was a case in which the mother persisted in sitting up and walking during the first stage of labor and well into the second. The baby was black in the face, and it took some thirty seconds to bring on respiration.

DR. LOVETT—I have always heard it stated that it was exceedingly unfavorable for the woman to lie on the side in the third stage of labor; that on the back is far more favorable.

DR. SANDERS—I never had any experience in the matter of the points started up by the Doctor who has last spoken; but I do know that you get rid of the terrible dragging and pulling of one side.

PUERPERAL FEVER.

By H. B. VAN NORMAN, M. D., Cleveland.

The greater the event, the greater the danger. It would seem that every mother should be exempt from the dangers of the lying-in chamber. When willing to undergo the pains and sufferings incident to such a wonderful condition, that she should in some way be excluded from this the most dangerous of all her possible difficulties. One may expatiate on the horrors of a broken breast, and may declare *she* would rather have another child than have a broken breast; for one such experience is sufficient for the most sanguine of mothers. And yet I heard my mother say, "Had she her life to live over again, she would have ten more," risking broken breasts, puerperal fevers, and all the dangers and sufferings connected with the birth and care of ten children.

Puerperal fever is really a terrible disease, and fastens itself upon its victim, sometimes, in a very insidious manner, and the first anyone is aware of its approach it is *there*, and often there to stay.

At another time all the household and the physicians are summoned, for the patient is having a *chill*, and alarm is depicted upon the countenance of every one. This chill comes before the fifth day, usually between the third and fourth, and may come about the time the milk comes.

At the present day many milk fevers, sore nipples, and puerperal fevers are prevented, or modified, by allowing the child to nurse soon after it has become a boarder and lodger in the household. Often the physician will search in vain for the cause of this chill, notwithstanding the nurse is thoroughly and persistently questioned. Have there been any damp clothes hanging about the grate, or near the patient, or has a neighbor dropped in with garments dampened by a recent shower? What has she eaten? Has the lochia disappeared? Has the milk ceased to flow? Has she pain and tenderness over the abdomen? The pulse is higher than natural, and may have been noticed by the physician as being a little above the standard, and a little wiry ever since confinement, yet nothing was thought of it until the sudden chill alarmed him, and now he looks about him hastily to see the best thing to be done.

I find by consulting different authors, and comparing notes and opinions with neighboring physicians, that I have a way of my own in commencing the treatment of many diseases. In this case, as in many others, I would first of all induce a profuse perspiration. This once established, and the work is well under way; or in other words, the fever will be modified, if not broken up entirely. My first medicine for the work in hand is *Gelsemium* 1st or 2d, according to circumstances, and in my judgment the patient can bear one drop to a teaspoonful of water, and given every half hour for twenty-four hours, unless a perspiration has been produced. After which time I repeat the dose at intervals of every hour, or every two hours, according to the thoroughness of the sweat. And now, in addition to the medicine already prescribed, and to give my

patient as much immediate relief from the pains, which are sharp and cutting, shooting and darting from one part of the abdomen to the other, often into the ovaries and hips, and sometimes into the thighs and down the limbs, when the abdomen is more tender and after pains, if any, are more cutting and harder to be borne, I see to it that a very large poultice made of linseed meal is hastily prepared and carefully placed upon the abdomen. I also advise a little mustard sprinkled over it to keep it warm, changing it every hour. Should the first twenty-four hours pass without any change either in pulse or in temperature, I would give Baptisia second, as I had the Gelsemium the day before, and continue the poultice, changing it every hour or two, as was thought best at the time.

As to the contagiousness or non-contagiousness of puerperal fever, I am led by actual experience to take almost entirely the negative side of the question, and would not in any case of my own ever think of its being contagious, and were it not for the experience of others I could not believe it. I never was the cause of communicating the fever from one patient to another, and have attended confinements while attending the fever, to the detriment of neither.

All this may be directly opposite to the experience of each of you; yet, while I have done it, I would not advise another to do so, for fear his experience might not be as favorable as mine. To tell the truth, I have never had my average number of cases of the fever, compared to the number of confinements attended.

While not being an egotist in any sense, I am inclined to the belief that clean hands and finger nails, with the best care on the part of the physician, and the same cleanliness and care being observed on the part of the nurse; and last, but not least, if there is observed the best sanitary regulations as to removing old, wet and soiled garments, and discharges, and being bathed, etc., there would be fewer cases of broken hearts and motherless children recorded in our communities.

I cannot now remember when I have been unfortunate enough to have a case of child-bed fever of my own. The ones attended within a few years have been patients of midwives, and had but

very little care. I would here enter my protest against this widespread practice, in large cities, of allowing midwives to attend confinements, and I know our death rates in this regard at least would be much less than now, were it forbidden. Some one might ask, if no midwives, how could the poor have medical attendance? This answer might cover the case: have more and better district physicians.

To return to our patient on the third day and no decided change for the better having taken place, I would not give up in despair by any means, as long as we have such remedies as *Belladonna*, *Arsenicum*, *Apis*, *Lachesis*, *Mercurius*, *Rhus tox.*, and *Secale*. Indications for these will be better found in the *Materia Medica* than to be repeated here. Now, instead of the poultice, I would apply hot fomentations of smartweed, the hot arnicated fomentations, or hot fomentations of witchhazel. Hop or bran poultice might be of use, or a liniment of turpentine. Sponging off the body frequently, even three or four times each day, has been of use, especially frequent bathing of the vulva and vagina with disinfectants, among which I would recommend Permanganate of Potash, Listerine, or Carbolic Acid.

Our patient needs but little to eat, but may drink in moderation the following: frequent swallows of cold water, only one at a time, barley-water, rice-water, toast-water, fresh milk, either hot or cold, in small quantities.

One more very important matter must be attended to, that is perfect quiet in and about the room, with as little anxiety depicted on the countenances of any admitted to the room as possible. Inspire the patient with hope and courage by what she may see and hear in the room. Positively no one admitted who cannot control herself.

Among the things in conclusion, I will mention the use and abuse of the thermometer. While a well-tested instrument is of great value moderately used, but a vacillating and unreliable thermometer will often give the physician the night-mare of forebodings and the joys of brighter days, just as the freak may take it, when there was perhaps no occasion for either. Patients also come to dread the use of the thermometer, even once a day; and unless she

is continually reminded to keep her lips closed, and the instrument so placed in the corner of her mouth so that the passage of air through the nose does not affect it, the registration is incorrect; and hence is in a measure worthless, and the patient has been tired and worried for nothing.

Has it ever occurred to you that the great majority of cases of puerperal fever occur among the very young and during the first motherhood? I have observed this to be almost the rule, and of course can give no satisfactory explanation of the fact, excepting that in all young lives with very vigorous constitutions (and I think we will find these the most easily affected) the blood is very much more inflammable, the appetite has been all one could desire and has been gratified fully, and perfect health has been her history; yet she has lived in many excesses; now let the termination come; the system is not prepared for the great shock which it is about to receive, and a fever is the natural result. All young people are more subject to typhoid fevers between the ages of fifteen and twenty than later or earlier. And who shall declare that most puerperal fevers do not take on more or less typhoid symptoms, especially when they terminate fatally?

PUERPERAL FEVER.

[A composite paper prepared for and presented by the Montgomery County Society.]

Etiology.—The subject upon which I am to read to-day—Etiology of Puerperal Fever—unfortunately for my hearers, was assigned me by our Chairman; but, on account of little experience with this disease, you doubtless will discover a lack of personal observation and original information; but I trust that this paper may not entirely fail of its object, to convey to you some few practical hints notwithstanding the uncertainty of the causes of this dreadful and generally fatal disease. Yet what few cases I have treated have been quite enough to rack the brain and puzzle the ingenuity of a practitioner, although from one case, well studied, a volume might be written.

Puerperal Fever, we are taught, and experience confirms, is a form of disease varying in its development, and wandering in its course, and from which no class, temperament or condition in life is exempt. Its advent is generally sudden—comes rapidly, and if not soon controlled may prove fatal in a few hours.

Child-bed fever may be defined in two forms of peritoneal inflammation, the ordinary and epidemic, or the simple and the malignant. This distinction is important, inasmuch as the one is a common inflammation, while the other is malignant in character. The former is probably due mainly to an exhausted, irritable, nervous system, while the latter results either from an epidemic or endemic influence—the product of some decomposition, either coming from without or within the body, being a fever due to the absorption of a decomposed organic matter. Consequently any animal substance when in a state of decomposition, whether in the cadaver or from the sick whose disease is in a state of putrefaction, or septicæmia is present, or any tissues presenting even so slight a degree of decomposition which germs, or miasm coming in contact with an abrasion or inflamed uterus may be the starting point of an attack of puerperal fever. This is the verdict of most authorities. We know that no one after confinement seems to be exempt. An easy, natural labor is just as liable to be followed by an attack as a difficult and protracted one. Very often no cause can be assigned for an onslaught of this disease, and we can only think of some peculiar dyscrasia of the individual constitution. The epidemic influence of typhus fever, as well as traumatic and gangrenous erysipelas is another source, it is said, by which a lying-in patient may suffer. I had a case a few years ago in which erysipelas of the face was present, or originated while I had two or three cases of malignant erysipelas under treatment. Now, the question arises, was I the medium through which the germ was transmitted to the mother? Although a wise (?) nurse gave a very active cathartic the third day following the confinement, which, to my mind, may have been the cause of the metro-peritonitis. These diseases, in some respects, bear a close resemblance or analogy, and the coincident occurrence of erysipelas and lying-in fever have led some to suppose that they were interchangeable. But this is only theory,

and more probably due to the atmospheric conditions favoring the development of these diseases.

Many other causes have been assigned to the development of this disease. Fragments of the placenta remaining attached to the uterine walls, and putrefaction following. Suppression of the lochia is also the frequently assigned cause of child-bed fever. Personal transmission by physicians and nurses from one patient to another has been discussed at length, and while much is said but little is known of the true cause of this most virulent and dangerous disease. We often come to different conclusions, and I find physicians greatly at variance regarding the true cause of this disease. Cases have been known to follow in the track of a certain physician, or in wards of lying-in hospitals, which are in the care of one or two physicians, the conclusion arising that the disease was due to contact with the accoucher; yet if close inquiry is made into the secret practice of that physician much of the cause might be discovered in another direction. For instance, a large dose of Ergot to hasten the labor, chloroform to deaden the pains, but which depresses the nervous system, and paves the way for some disease; instruments out of season, and thus injuring the parts; a tight bandage, with a pad over the womb, followed with opiates to relieve after-pains, and produce sleep; and, finally, an active cathartic two or three days after labor, etc. Are these unnatural interferences not more likely causes than personal contamination with the physician?

This following in the wake of certain physicians does away with the theory of lying-in fever being due to a peculiar vitiated constitution. Is it not then due, in a great degree, to the careless, unnatural handling of the labor and the lying-in period of the mother? We, as accouchers, are inclined to do too much to hurry the case through, bending nature to our own ideas of time, thus conflicting rather than harmonizing with nature's laws. On the other hand, we might neglect some things that should be done to assist nature, and thus place to our charge both the sins of omission and commission. I remember an article by Dr. Ehrman, of Cincinnati, published in the *Investigator* a few years ago, in which he recommended Arnica as a septic and pyæmic remedy, and a specific for the puerperal

state, and for post-partum tympanitis. And I also find that Grauvogel says that after he began the use of Arnica in or after confinement he never had a case of puerperal fever to deal with. This harmonizes with my own experience with the use of this drug, which I invariably prescribe in the lying-in state, and it is now more than five years since I have had a case of this kind to develop in my practice.

The old adage, "An ounce of prevention is worth a pound of cure," may be true in most instances, but to a puerperal mother an ounce of prevention cannot be estimated in pounds of cure.

Having thus spoken in brief of only a few of the influences by which a puerperal woman may, by the slightest breath of an epidemic fever, or animal poison, have kindled within her a puerperal fever, I conclude that much of the responsibility lies with the physician in charge, for which I censure most strongly the misapplication of crude drugs and instruments during natural labor. I cannot but sincerely advocate the greatest precaution in regard to sanitary laws. For, should the accoucher be a conscientious man, one who observes cleanliness as well as godliness, adopts the anti-septic method with his own person, using vigorously and often a good nail-brush, a channel through which a death warrant might easily be carried, with a careful observance of nature's laws, looking well to the homœopathic remedy to correct non-harmony before labor, as well as during the lying-in state; with the anti-septic remedy before mentioned, leaving his patient with a good, sensible, careful nurse, who will observe hygienic and dietetic rule, will seldom, if ever, be called upon to treat a case of this dangerous and much-dreaded puerperal fever.

T. E. REED, M. D.

PUERPERAL FEVER.

Pathology.—In studying the Pathology of Puerperal Fever, the classification of Spiegelberg enables us to keep in mind the principal points of inquiry:

1. Inflammation of the genital mucous membrane—endocolpitis and endometritis.

- *a.* Superficial.
- b.* Ulcerative (diphtheritic).
- 2. Inflammation of the uterine parenchyma, and of the subserous and pelvic cellular tissue.
 - a.* Exudation circumscribed.
 - b.* Phlegmonous, diffused, with lymphangitis and pyæmia (lymphatic form of peritonitis).
- 3. Inflammation of the peritoneal covering of the uterus and its appendages—pelvic peritonitis and diffused peritonitis.
- 4. Phlebitis uterina and para-uterina, with formation of thrombi, embolism and pyæia.
- 5. Pure septicæmia—putrid absorption.

For a detailed description of this classification, I refer you to the masterly production of Lusk on Puerperal Fever.

I will give a general idea of the morbid changes and appearances found post-mortem. The inflammatory processes are rarely confined to a single tissue. They differ greatly according to the duration of the fever, and the part of the body affected. For we may have lesions of acute pleurisy, ulceration endocarditis, purulent inflammation of the joints, hyperplastic swelling of the spleen and lymph glands, or metastatic abscesses in various organs, as in any acute infectious disease, caused by the spread of infectious material by the blood.

Generally the lesions (lacerations) in the genital tract will present an unhealthy appearance, their edges being swollen and oedematous. The uterine surface is generally found intensely inflamed, softened, a more or less extensive gangrenous inflammation of the interior of the uterus, with the sloughing off of shreds of necrotic tissue, and the consequent formation of deep ulcers, which are apt to be accompanied by severe para and perimetritis, or where the inflammation has been of a croupous character, and has affected the vagina, we find areas of necrosis, gangrene and ulceration; while with or without either of these forms of inflammation there may be uterine thrombosis, purulent inflammation of the veins or

suppuration and abscess of the uterine wall. Embolus may be found as a result of thrombosis.

The peritoneum is nearly always affected; it may be only congested in patches, but is generally universally so; the intestines may all be glued together, and the sack may contain serum or seropus with flaky lymph.

In very malignant cases the local lesions are but slightly marked and general alterations due to the poison wanting. The active and abundant poison entering the system through the lymphatics and veins causes death from acute septicæmia before the changes in the sexual organs have had time to develop. In the blood of these malignant cases is found an increase of white corpuscles, a decrease of red blood-cells, an increase of fibrine and extractive matters, lactic acid and fat, and frequently traces of bile pigment.

Micrococci are constantly present in the inflamed tissue.

C. O. MUNNS, M. D.

PUERPERAL FEVER.

Treatment.—In the treatment of this grave disorder it is all-important that we first definitely determine the exact organs affected, *i. e.*, whether we have general inflammation of the peritoneal sac, constituting puerperal peritonitis, or an inflammation of the uterus and its appendages to deal with. The local treatment is of primary importance, and shall first demand our attention. When called to treat a case of puerperal fever, the first duty devolving upon the physician is to enforce thorough and perfect cleanliness among the attendants. Every vestige of soiled bed-clothing and garments should be removed from the house, and a radical system of anti-septic methods adopted. Syringes and bed-pan, if used, should be immersed in boiling water, and then rinsed in a solution of bi-chloride of mercury 1 to 2,000 before using again, and the atmosphere of the room should be frequently changed and kept pure.

If the lesion is found to be in the uterus, and the infection can be shown to proceed from the uterine cavity, as a direct result of the presence of portions of decomposing placenta, which can be

determined usually by the offensive odor of the discharge, an intra-uterine injection should be used immediately. To one pint of hot water, 100° Fah., add one-half ounce of glycerole of calendula; inject through a double canula to insure the escape of the injected fluid. This solution should be used at intervals of four to six hours, as long as the returning fluid shows signs of decomposed matter, and should be suspended when the uterine cavity is known to be clean. Should there be portions of retained placenta discovered adhering to the intra-uterine cavity they should be removed at once with the finger or curette, and the denuded surface thoroughly washed with the above solution.

The vaginal douche need only be used when there is a metritis, or some laceration from which the infection may arise. To prohibit the absorption of poisonous matter into the blood is an important feature in the treatment of puerperal fever, and such measures as tend to lessen the liability to such infection should receive our careful attention.

Hot fomentations applied to the abdomen, particularly when the peritoneum is the seat of the disease, will be both beneficial and palliative.

For the constitutional treatment of this disease, we have, according to some authors, a host of remedies, all of which may be indicated in the course of the disease; but we have, in *Verat. viride*, *Aconite*, *Gelsemium*, *Bryonia*, *Colocynthus*, *Belladonna*, *Arsenicum* and *Rhus tox.*, the leading remedies needed in this disease.

About the first and most important feature that attracts our attention in these cases is the high temperature, usually preceded by a chill and offensive lochia, both of which show that purulent endometritis and septic infection has set in. We find the patient with a high temperature, from 103° to 105°; bounding pulse from 110 to 130, and intense pain in the head. For the above symptoms one of the most potent and certain remedies to control the high temperature which causes such a waste of tissue by the rapid oxidation induced, although prescribed empirically, is antifebrin in five grain doses, dissolved in two drachms of whiskey, given every four to six hours, if necessary. In conjunction with antifebrin, *Verat.*

viride is the remedy par excellence, for the bounding pulse and high, inflammatory process, five drops of the tincture in four ounces of water, and a teaspoonful every half hour, until the pulse is reduced in volume and frequency. Ludlam calls Verat. viride a "puerperal polychrest." It restores the lochia, stimulates the mammary secretions, shields the lungs from serious complications, and quietly and gradually slackens the pulse.

For the sharp, cutting pains in the abdomen, violent headache and vertigo, profuse sweat—Bryonia alb. will be indicated.

When there is great prostration and languor of the whole body, restlessness, tossing about—Rhus tox. When we have general rapid sinking of strength, yellow, livid countenance, distended abdomen and great thirst—Arsenicum alb.

Aconite is used by many in the acute inflammatory stage; small, hard, wiry pulse, with great restlessness and anxiety.

Gelsemium—pain in back of the head, pulse full and strong, tendency to stupor and dimness of vision.

There are many other remedies that may be indicated in the treatment of this disease, and a remedy well selected must not be abandoned too early, as valuable time is sometimes lost by an impatient desire to see beneficial results from our remedy.

Cool drinks, non-alcoholic; good nourishment and careful nursing, with the proper antiseptic precautions, will add to the comfort of the patient, and to the efficacy of the indicated remedy.

J. W. MEANS, M. D.

DISCUSSION.

DR. OWENS—I never use antiseptics, and I have not had a case of puerperal fever in twenty-five years. I never give any medicine after confinement, except it is indicated. I give Arnica for the soreness and bruised feeling. If there is a tendency to hemorrhage, I give Secale; for muscular soreness, I give Bryonia.

DR. OUTLAND—My former teaching was that we were really at fault if we would wait on a lady in confinement after having treated erysipelas. I have treated phlegmonous erysipelas, and right upon the heels of that, while I was opening these abscesses I was called upon and treated in ten days five cases of confinement. I was extra careful in cleansing my hands; I would usually wash them with alcohol, and I have had no bad results to follow in either of these cases. All had a good getting up.

DR. FAHNESTOCK—After hearing this paper read at Dayton, I had a hard case of labor, and had given Arnica, as I have been in the habit of doing in all cases. It got along nicely until the fourth day, and then it resulted in puerperal peritonitis. The case is now doing well. I saw another case that died this Winter. I was called in the twelfth hour of the case, and there was no chance of doing anything at that late time.

DR. PARMALEE—The distinction ought to be made between that class of cases which give rise to septic symptoms in which the patient poisons herself, and those poisoned by the attendants. The former is at present the approved theory in regard to the origin of cases of puerperal fever. But in the opinion of Fordyce Barker, of New York, there is a puerperal fever which is a distinct essential epidemic fever. That is a remark that will have attracted the attention of all who have read his article on puerperal fever in his "Diseases of Women." Those who have not read it ought to do so at once, and will be astonished at the facts which he sets forth, that there is an essential epidemic puerperal fever, entirely different from cellulitis, from puerperal peritonitis, and from all these troubles which come from a lacerated cervix, or a lacerated endometrium, or from any of those cases that can poison themselves.

THE DIAGNOSIS OF PREGNANCY.

By ORPHA D. BALDWIN, M. D., Cleveland.

If it were fashionable for every woman who admits to herself the possibility that impregnation has occurred to immediately seek advice of her physician how best to prepare herself for the new duties and trials which she may meet within the next nine months, undoubtedly we would all become skillful diagnosticians of this condition at a much earlier period after leaving our alma mater than it is possible for the most fortunate of us to do at the present time.

Guernsey says: "The determination of pregnancy at the earliest possible period forms one of the most frequent, difficult and important problems in the practice of medicine." I have no doubt but that you are all willing to agree with that statement. Certainly I am. As a rule, however, our patients come to us with a ready-made diagnosis, so that we are relieved of all responsibility in this direction. This only serves to render us all the more helpless when we are consulted in cases where the patient, her mother, and the grandmothers of the neighborhood have been unable to translate the gestation signals, or failing to find the usual ones, have been unable to furnish a diagnosis.

I have no apology to offer for not presenting an exhaustive paper on the signs of pregnancy that are found in our text-books. You know as much about them as I do, and perhaps more; so why should I say anything about them?

About a year ago, I read, if my memory serves me correctly, in the *Medical Era*, the statement that during gestation the mother's pulse is the same whether she be sitting, reclining or standing. Since then I have carefully applied this test not only to cases of

suspected pregnancy, but to all cases of suppressed menses, and I am about ready to place it second only in value to the foetal heart-beat. Why it is so, or how to account for it, I shall not undertake to explain. In no case of suppressed menses produced by overwork, wet feet, mental conditions, or causes other than gestation, has this sign been present. Neither have I found it at the approaching climacteric nor in *all* cases of pregnancy. But I give you the result of my study of this subject, with the hope that at our next annual meeting you will be willing to do the same.

In one case of gestation, I found it as early as the eighth week, and in two cases before the twelfth week. I saw four cases at the Women's and Children's Dispensary in which gestation had advanced from five to five and a half or six months.

I found in these an absence of the most of the presumptive and probable signs, and could not hear the foetal heart-beat, but finding this sign I told them what I considered the trouble, and in due time my diagnosis was verified in three cases, and the other case did not report. I have seen fifteen or eighteen cases after the sixth or seventh month, and, as a rule, have found this sign. In the cases where I have failed to get it, I think it has been largely due to my own stupidity in not explaining to the patient what I should want her to do, and then waiting a few minutes before applying the test. I found in these cases the heart beat exactly the same number of times when sitting and standing, but in the reclining position it varied two or three beats. I think I have found this sign in fully two-thirds of the cases of pregnancy examined.

DISCUSSION.

DR. EATON—This paper has interested me exceedingly, and I was in hopes that I was going to learn how to diagnose a case of pregnancy that had not gone beyond six weeks. I think it is easy enough when a woman is seven months along. I do not see the value of this pulse-beat when it is six or seven months, or even as

far as five months along. As this subject is now under consideration, I would like to hear from Dr. Sanders and Dr. Beckwith how best to determine pregnancy in the early months. When a lady comes to you and says, "I have missed my menstruation" thus and so long, how shall we determine whether that case is pregnant or not? I have met instances where it was impossible for me to be absolutely sure. I understand the ordinary signs of pregnancy, but I think in some instances they are not present, and if these gentlemen, or Dr. Baldwin, have any absolute indications or any indications which will throw light upon the subject, I will be very glad to listen to them for my own information.

DR. DEETRICK—I would like to call the honorable Chairman as a medical expert in a suit brought for seduction and bastardy some six weeks or two months afterwards, to give a diagnosis of pregnancy. I would like to hear what diagnosis she would make.

DR. SANDERS—I feel that there is necessarily so great a doubt hanging over these cases that it would not be safe to lay down any positive rule. I think we have no sign, no evidence beyond that it is merely presumptive until further along in gestation. If there are any more definite signs, I am not aware of them. I always reason this way when I am asked that question: "You are a married woman? Yes. Ordinarily your menstrual function has been regular? Yes. You have had no occasion for any suppression? No." I say then, "the presumptive evidence is that you are pregnant." When the woman is not married I give her the benefit of the doubt invariably.

DR. CRAWFORD—There is a little point of physiological information here that I would like to hear discussed. I was particularly interested in the paper, and would like to learn if it is a fact that such contradictions of physiological action as have been shown us in the paper exist. I think, however, that it is not possible for such

contradiction to exist. We have been taught, and it has been proved over and over again, that one's pulse is faster in the standing posture than in the sitting posture; and faster in the sitting posture than when recumbent. And I am inclined to believe that if a certain number of cases be tested and a rule formed upon the average and not upon the few, you will find that a pregnant woman cannot become an exception to the rule; she must conform to it. At any rate, I wish the members would study up the matter and see if any such contradiction of a fundamental function of the body can be found to exist. I have seen the same thing in male persons under the influence of the sympathetic nervous system, or the cerebro-spinal; both of these seem to produce all sorts of pulse contradictions. The knowledge that an examination is going on will bring about the desired result.

DR. JOHNSON—On that question I remember once, when I was growing up, that a physician of our town, who was an intimate friend of mine, was called to such a case. The parties had been married nine months all but a few days. Another physician had been in attendance in that family. There were all the symptoms of pregnancy, and the woman carried them through from beginning to end. Baby clothes were made, and all other preparations, and finally confinement came and the physician was called in. Pains came on in good shape. He waited two days, and there were no returns, and still the patient was in labor. My doctor friend was then called, who, after an examination, told them it would require at least nine months for anything like a child there. It is possible to be mistaken there. On the question of prolapsed cord, what I want to say to you is this, that three of my cases in the last six months had the cord around the neck of the child; this happened to mothers who always behaved well.

DR. BALDWIN—Sometimes it is important to know at five months whether a woman is pregnant or not. It may make a great deal of difference in the arrangements of the family; they might be

on the point of going on a journey, and she might want to be at home for that. I think it is equally as important to diagnose it then as at any time, and if the woman is worried and anxious, and she never felt so before, she is about crazy. I think it is quite as important to diagnose it then as at any other time. And if this that

- I have stated proves true—as true to the other physicians as it has to me—I think it will prove of much value. I have examined some thirty cases this year, and if there was any case in which I didn't get the sign I think it was due to my own stupidity. I didn't inform my patients that I was going to examine their pulses for this object; I did not call up their imagination to assist me. I know enough not to do that. In three cases of pregnancy, before the twelfth week, I found this sign correct. In one case, the woman giving this sign was unmarried, but as Dr. Sanders has said, I gave her the benefit of the doubt, but it proved to be the fact, notwithstanding. You frequently find those cases in dispensary work. She told me all manner of stories, and I could not get any sign that I wanted to get, except that the menses had ceased. But, finding this pulse sign, I told her just what I believed was the case, and about a month after that she came back and owned up. So you see the sign has been of some assistance to me. I feel like Dr. Pratt—as he expressed himself this morning: "Don't say you won't believe it; if you have not tried it, for heaven's sake go and try it and see if it be true or false. Try it for a year, and see what the result will be."

BUREAU OF NERVOUS DISEASES.

STELLA HUNT, M. D., Cincinnati.

J. D. BUCK, M. D., Cincinnati.

J. A. GANN, M. D., Wooster.

HYSTERIA.

By STELLA HUNT, M. D., Cincinnati.

Hysteria is a disease that has been described from the time of Hippocrates to the present day. The literature on the subject is voluminous and confusing. There are as many different theories as writers. The more authors you consult, the less definite become your own ideas. Each case you meet with in your own experience presents a new phase, and you are left to draw your own inferences.

In describing Hysteria, or a typical case of it, one is placed in the position of Max O'Rell in describing the American people—"a people," he says, "represented by every nationality, with a population of sixty millions—yes, sixty millions! all alive and kicking. There are Americans in plenty, but the American does not yet exist." So with Hysteria; it is a disease in which "all the ills that flesh is heir to" may be simulated—a disease in which there is such a lack of uniformity in the symptoms, and such different manifestations in each subject, that while there are cases innumerable, the hysterical case does not yet exist.

One writer calls it a "protean disease," another a "perplexing malady."

In the first place, the name misleads you. Hysteria is from a Greek word meaning "uterus," because it was reputed to have had its seat in that organ. The ancients supposed it originated in the ascent of the uterus to the diaphragm and throat. According to them, this organ was extremely accommodating, and could wander at will throughout the body, doing all manner of mischief. This view that Hysteria is due to disorders of the womb is incorrect, for

the disease exists in women in whom all the functions of the uterus are healthily performed, and even in women born without a uterus "It is high time," says one of the latest authorities, "for the medical profession to throw off the thralldom of this ancient view."

Chambers asserts the truth when he states that Hysteria "has no more to do with the organs of reproduction than with any other of the female body; and it is no truer to say that women are hysterical because they have wombs than that men are gouty because they have beards." The writer who throws the most light on the subject defines Hysteria as a "functional disease of the cerebro-spinal axis, characterized either by special mental symptoms, or by motor, sensory vaso-motor or visceral disorders, related in varying degree to abnormal physical conditions." "It is not abnormal ideation, although this is so often prominent; it is not emotional exaltation, although this may be a striking element; it is not perversion of reflexes and of sensation, although these may be present. Some would make it a disease of the womb, others an affection of the ovaries; some regard it as of spinal, others as of cerebral origin; some hold it to be a disease of the nerves, others claim that it is a true psychosis." According to Duglinson, "it is a species of neurosis, classed among the spasmi."

While the spasmodic seizure or paroxysm is the central feature of Hysteria in many cases, yet there are cases which pass through the whole course of the disorder without a spasm of any kind.

In regard to the hysterical diathesis frequently spoken of, according to one author, "every hysterical woman is stout, short, dark plethoric, full of life and health. The complexion is brunette and ruddy, the eyes black and sparkling, the mouth large, the teeth white, the lips of a carnation red, the hair luxuriant, etc."

If we turn to Weir Mitchell, we find "a low level of health" and a "weak will," characteristic of Hysteria. Todd describes a peculiar expression of countenance which he calls "*facies hysterica*," the characteristics of which are "a remarkable depth and prominent fullness, with more or less thickness of the upper lip, and a peculiar drooping of the upper eyelids." Mills agrees with him so far as to say that this appearance is presented in a fair percentage of cases, especially in male hysterics.

According to Hammond "the disease takes women as it finds them—blondes, brunettes, stout, thin, strong, weak, ruddy or pale—there is no choice. Some hysterical women (he uses the word 'women' entirely too often) have delicate figures and intelligent minds;" others with "dull, stolid faces give evidence of their stupidity."

Hammond is all right as far as he goes, but he leaves out you gentlemen entirely. Chas. K. Mills treats the subject fairly and squarely, and does you more justice. He states that it is all important to emphasize the fact that Hysteria is *not* exclusively a disease of the female sex. He describes in a matter-of-fact way that Hysteria in men takes on almost any form that it does in women; that it may affect the strong, though it is more often seen in the weak and effeminate. Even strong, vigorous workmen, he says, are susceptible to it. Further, that the disease in the male sex is often overlooked because hysterical symptoms in men are frequently classed under other diseases.

Many authorities agree that the first great cause of Hysteria is sex. Hammond asserts that out of 332 hysterical cases three were of the male sex. Briquet, out of 1,000 cases, fifty were of male sex. Mills again comes to your rescue and says that he believes the proportion of hysterical women to hysterical men is really less than Briquet's statistics show—instead of twenty female subjects to one male, fifteen to one would be nearer the truth. Could we get at the true statistics, this proportion would be greatly reduced.

"Want of occupation" is claimed by Hammond as another "powerful predisposing cause" of Hysteria in women. In savage countries where women *work*, he asserts that Hysteria is unknown.

Weir Mitchell chimes in and gives as his reason that Hysteria predominates so largely in the female sex, is because "women lack those distinct occupations and aims which in the lives of men are like the steadying influence of the fly-wheel in an engine." These two authorities echo the sentiments of many others.

In this present busy age when woman's work is extending in every direction, and the world is wondering what she will take up next, a century that Victor Hugo cries, "is woman's"—the question

arises whether it is not time for Hysteria as a disease among women to be dying out. Are there as many cases now as formerly? One of the latest works published this year on Diseases of Women does not even mention Hysteria. If we could only get at the real statistics; but as Mills says, "statistics on this subject are deceptive." We can get some idea of the truth by looking back through the history of Hysteria.

Throughout the middle ages up to our own time we find in all countries, civilized and uncivilized, some of the most extraordinary epidemics classed by medical writers under different phases of Hysteria. In 1374, there was the "dancing mania" at Aix la Chapelle, affecting large assemblages of men and women. It subsequently spread through Germany, and broke out in several parts of Europe during the fourteenth and fifteenth centuries.

The Brotherhood of Flagellants, an early religio-nervous craze, is another example. They formed themselves in large processions, carrying scourges with which they lashed themselves violently. Flagellant processions were witnessed at Lisbon as late as 1843.

In 1731, there were the Jansenist Convulsionaries, a fanatical sect of Jansenists, who visited the tomb of a certain Francis of Paris, where they threw themselves down into the most violent contortions, rolled upon the ground, imitated birds, beasts, fishes, etc. This epidemic lasted off and on for fifty-nine years, and was quelled only by threatened imprisonment.

In Great Britain, 1760, a religious sect known as the "Jumpers" prevailed. Those affected jumping continuously for hours. Epidemics of this kind broke out in other places.

The New England witchcraft is an example in our own history. The "Jumping Frenchmen" of Maine and Northern New Hampshire are described by Beard as late as 1880.

The writers who give accounts of these epidemics lead us to infer that there were equally as many men affected as women.

One of the latest epidemics of this kind, and one within your own experience, one in which the male population was affected out of all proportion to the female, was witnessed during our last campaign. A daily paper described the epidemic in New York as fol-

lows: "During the last campaign, New York went absolutely and undoubtedly mad. Her streets were filled with shouting, frantic mobs. The police were kept busy with frequent collisions. Never were there seen such gigantic parades."

There was the roar of drums and flare of torches. The contagion of Hysteria is spoken of by many writers. Hammond gives an account of a whole hospital ward of women thrown into paroxysms by one hysterical subject. Here was an example in which the whole male population of the United States was thrown into a hysterical state.

Mills says that Hysteria in the United States may assume almost every form, because American people represent every race and nationality. He spoke truly. There was every variety of manifestations witnessed in this last epidemic. In our large cities, notwithstanding electric cars and cables, men were seized with an irresistible desire to wheel each other through our prominent streets in wheelbarrows.

That "craving for sympathy," another characteristic of Hysteria, was strongly manifested in the face of a tall, thin, haggard-faced individual who was wheeling around a shouting 400 pounder.

Hammond asserts with emphasis that the society of hysterical persons should be avoided, and that even meeting with such is dangerous. His advice is worth heeding. Many persons, not previously affected, when they beheld the actions of those afflicted, were excited alternately to tears and laughter. The disposition to laugh and cry was a pronounced symptom in the well-developed cases, only the symptoms were sort of divided; while some laughed hilariously, others had the most doleful expression of countenance. One man was seized with a mania to shake hands with everybody. He was under a delusion that he had to shake hands with fifty strangers. As he advanced, bowing and offering his hand, some of the passers-by wanted to thrash him. The ladies were especially displeased at his daring. A sympathizing friend who stood by quelled the disturbances and appeased the injured feelings of the ladies by touching his forehead and saying in a sad voice, "don't mind him, madam; out of his mind, out of his mind." And one

old lady was heard to remark, "So young," she said, "so young, and mad; oh, what a pity!"

Another case was that of a well-dressed merchant who imagined he was a peanut vender, and stood on the streets selling peanuts. Another afflicted friend knelt on the pavement blacking the boots of a long line of friends. Another one promenaded the streets in full lady's costume, others disguised themselves as birds, beasts, fishes, etc., followed by the omnipresent *small boy* and his tin horn.

There was one epidemic of the middle ages in which those affected attempted to mutilate their bodies. Cases of this kind were frequently in the present epidemic. You met men with their eyebrows, their hair, or some other accustomed ornament shaven off.

One interesting case was that of a man with a stubby growth of beard on one side of his face, while the other side was cleanly shaven. The cases quoted were "but straws in the current," as one paper says, compared to the great number affected.

Dr. Annie Shaw, in describing the outbreak in Indianapolis, says the streets were filled with a howling, surging mass of humanity, that seemed to have gone stark mad. There were men pounding each other's heads, jamming their hats, slapping each other on the shoulders, shouting, jumping up and down, hugging each other—men so big it took three armfuls to go round—and yet, she says, "You men say women are emotional."

According to Hammond, "Hysteria consists essentially in a predominance of the emotions over the intellect, and especially over the will." This was characteristic in this epidemic.

In this age, when old traditions in history, theology and literature are being torn away in the search for truth, is it not time we had some light thrown on this subject?

That men have a large, emotional side to their nature cannot be denied, that it may predominate over the intellect and will has been demonstrated. The fact that the manifestations of Hysteria during a recent epidemic were confined so exclusively to men gives rise to the question whether as to sooner or later distinct occupations and aims, which are like the steady influence of the fly-wheel,

have not changed during the past quarter of a century, and whether Hysteria will not be classed as a disease peculiar to the male sex.

The different phases of Hysteria, Epilepsy, Hyستero-epilepsy, Catalepsy, Ecstasy, etc., it will be impossible to describe, as each would require a separate paper.

In regard to the pathology of this disease, Hysteria is a functional disease, and offers nothing to the science of morbid anatomy. Charcot inclines to the belief that in grave forms of Hysteria either the brain or spinal cord is the seat of temporary modification, which will, in time, give rise to permanent material changes. Autopsies reveal nothing, unless it be a suspicion of congestion in certain parts of the brain.

There are two principal theories in regard to the change that takes place in the nerve centres of the cerebro-spinal axis during an hysterical attack. One is the vaso-motor, in which the change is vascular, either congestion or anæmia being present. The other theory is dynamic, in which the change in the nerve centers is molecular and of some undemonstrable character.

Mills, in summing up the pathology of Hysteria, considers the anatomical changes as *temporary*, and that while they may occur in any part of the cerebro spinal axis, they generally occur in the cerebral part, and that the changes are both dynamic and vascular.

The psychical element enters in, in that, on the one hand, violent mental stimuli, which originate in the cerebral hemispheres are transmitted to vaso-motor conductors, or, on the other hand, psychical passivity or torpor permits the undue activity of the lower nervous levels.

There are a few points I wish to call attention to in closing this paper:

Heredity has a great deal to do with the development of Hysteria.

No age is free from the disease, though it occurs oftener between fifteen and thirty.

It may occur in any rank of life, less frequently in the middle classes.

It may be caused from no work, overwork, or irritating work.

In the treatment of Hysteria, you have the whole *materia medica* to choose from, and all forms of treatment, from cold water to moral suasion and faith-cure.

Weir Mitchell claims "the whole mode of treatment rests on a study of character, and a moral diagnosis is the first step to be taken."

Each case is a law unto itself, and requires all the tact and patience a physician is capable of, testing his knowledge of human nature, his intellectual ability and his highest mental qualities.

DISCUSSION.

DR. CRAWFORD—This essayist has presented a few questions that I certainly think deserve our serious attention. Without attempting to discuss the paper at all, I would like to say one thing; I want to endorse the sentiment that Hysteria is not the sole property of women. I think every practitioner present can recall as many cases of Hysteria on his own side of the house as he can find among the women. I hope we will have some more excellent investigations into this subject, until we can safely place this disorder where it belongs, among diseases of the nervous system, with no reference whatever to the sexual system.

DR. GANN—I was called in consultation by Dr. Warren. Found a lady dying, cold, pulse not far from normal. I thought she was not dying, and expressed myself to that effect. A few days afterward I again met the doctor, who informed me that she was a fraud. She did not die. Here was undoubtedly a nervous change of some kind. In suspected Hysteria, watch the pulse.

DR. SANDERS—I think the paper was scholarly, was elegantly read, was exhaustive of the subject, and should not certainly pass without the commendation of the Society. I regard it as a charm-

ing paper. I fully endorse the general proposition, except as it may apply to us as a sex. I have never seen a full case of Hysteria in a man, but I have had to do with Hysteria in women. This is perhaps owing to a lack of opportunity. In its relationship to the sexes it is a very interesting subject. You will rarely, if ever, find a case of Hysteria after the final change—after the climacteric. I have seen them up to that time, ranging all the way through from 15 to 40 years of age, but have never seen a case after the climacteric, and while I think the main proposition is correct, the primary centre, as she has placed it, is in the cerebro-spinal system, I think its exciting cause often is in the genitive centre, and when that function has gone into its state of inactivity, or rather, loses its susceptibility, that the woman loses that peculiar condition which has its full development in Hysteria.

THE RELATION OF REASON TO THE SENSORIUM.

By J. D. BUCK, M. D., Cincinnati.

Man has been called a reasoning animal; it by no means follows, however, that man is the only animal that reasons, nor is it true that as a rule reason governs in the life of man. Reason may be defined as the faculty of viewing the relations of our ideas of things, and of drawing conclusions from such relations. The higher animals no less than man have, no doubt, their ideas of things, and also exercise the reasoning faculty, by drawing relations between and arriving at conclusions from their ideas of things. While this fact may ordinarily be overlooked, there are many well authenticated anecdotes of animals that support the statement. The life and daily experience of mankind is governed less by reason than most persons suppose. Reason is often applied to facts

that have already transpired in the individual experience for the purpose of explaining motives of action, but almost without exception in such cases the motive of action will be found to be one of feeling in which reason was not only not concerned, but which may have been entirely unreasonable. If the life of man were habitually governed by reason, and if the natural relation of ideas leading to logical conclusions could be shown to determine human conduct, we should not only be saved a great deal of trouble, but we should arrive at a far higher degree of truth. The motive of human conduct is feeling and not reason. The result of our states of feeling giving rise to action is experience, and much that we are in the habit of regarding as reason based on the relations of ideas, is neither more nor less than recollections of our states of feeling as to whether the experience gave rise to pleasure or pain. The facility and correctness with which certain insane persons will reason on abstract principles and the relations of ideas, is sometimes very remarkable. In such cases it is the individual's experience, his states of feeling, and memory that are at fault, instead of reason that is dethroned. With most persons happiness is conceived to be the end and aim of existence, and no two persons agree in their idea of what will constitute happiness. The conditions that will constitute the happiness of one person would not only seem unreasonable and absurd to another, but would make that other entirely unhappy. It may thus be seen that what we call happiness is not only a result of individual conditions and feeling, that the relations of ideas in such conditions may not at all concern reason, and may be quite the reverse of anything to be determined by reason, but it may also be seen that no criterion of feeling or experience alone unaided by reason can arrive at any certain or permanent results. In other words, all results of experience based on feeling must differ in every case just as the experience of individuals differs.

While it may thus be seen that reason seldom governs in the life of man, it may also be seen that reason really occupies a higher position than mere feeling, and that while the motive power of the life that is based on feeling may be individual happiness, reason alone can enable man to arrive at truth. Man ought, moreover, to be aware that the happiness that results from states of feeling is

never permanent or satisfactory. Nothing can be imagined that is more fickle and evanescent than our states of feeling, and if we try to imagine that any state of feeling that we designate as happiness should become permanent; and unchanging, we shall discover how soon we would tire of it, and at last come to loathe and to despise it. Our states of feeling, therefore, and all ideas of happiness based thereon can be nothing else but a delusion, and such delusion is really the bane of human life, leading often to disappointment and finally to despair. Reason reveals this delusion and will save man from despair. Man will still be led by feeling, and will not by any means despise happiness, but his feeling will indeed change, and his ideas of happiness will change also.

Reason will never govern in the life of man so long as individual happiness is the sole motive power of his life. Whenever man realizes that no permanent condition of happiness is possible to him, that every coveted prize palls in the hour of possession, and whenever he is able to rise above feeling and to enter the realm of reason he will find himself on the way to truth. By the term feeling, I have designated the joint results in the consciousness of man derived through the sensorium, as it is through these that man is related to the outer world and to his fellowmen. A little reflection will convince every thoughtful person that it is thus the sensorium and not reason that determines individual experience and really shapes the life of man. We covet pleasure and avoid pain; we seek health, and avoid disease; we covet riches, and avoid poverty; we seek power and fame, and avoid weakness and obscurity through the mechanism of feeling or the sensorium, rather than through reason, and these pursuits constitute almost the entire life of the average man or woman of the world. If we realize this fact and then conceive the idea of finding out the real truth in regard to all these experiences, then we must bring reason into our service, and allow it to govern the sensorium and to pass upon all experience.

The importance of such considerations as these can hardly be over-estimated. Mental and nervous maladies are largely on the increase, and there will presently be a still larger number of such cases seeking relief at the hands of the skilled physician. The

skilled physician is not one who goes blindly at his cases, trusting to luck or to some happy accident to help him to a diagnosis or to a remedy. If we are entirely ignorant of the ordinary method of procedure in the daily life of man, it will be impossible for us to correctly estimate or skillfully handle cases of so-called mental alienation. How seldom do we meet with an individual who is always reasonable and generally just, and yet how universally is such an individual appreciated when found. We seldom stop to analyze such a person and to determine wherein the real difference consists between such an one and the average man of the world who is governed by passion swayed by feeling, and who pursues his own selfish aims of individual happiness. These are but the surface considerations of those deeper problems that underlie every case of mental alienation, and these considerations are almost universally neglected or ignored. There are, indeed, few cases of so-called physical disease to which these propositions do not more or less apply, or in the analysis and treatment of which they do not offer the most valuable aid.

The statement that most persons are governed by feeling rather than by reason may seem very trite indeed, but a careful analysis of all the facts and functions involved, leading up, as such a process inevitably must, from a philosophy of physiology to a true psychology, is a matter of the first importance.

I have already defined reason as the faculty of viewing the relations of our ideas of things, and of drawing conclusions from such relations. It may readily be seen that if we reason correctly the conclusions will be determined by our ideas of things, and that if we reason incorrectly our conclusions will be determined by false reasoning. Now, the reasoning faculty can be easily cultivated, and the rules of logic easily determined; consequently false conclusions as the result of false reasoning can easily be gotten rid of. Correct reasoning, therefore, places all our conclusions over against the ideas with which we start, and so furnishes a test for all our ideas of things and so to enable us to determine whether our ideas of nature and of man are true to nature and beneficent to man. This takes all our propositions out of the realm of personal feeling and personal

bias, and holds them up to the test of reason and to the light of truth. The question is not, in such cases, whether we like such and such a conclusion, or whether it is likely to further our selfish interests and personal ends; the sole question is whether such and such conclusions are reasonable and therefore true. To measure truth by self-interest is to deceive ourselves, so that we in time become incapable of distinguishing between the false and the true, and this is practically to dethrone reason. Such an individual is really insane, and such is really the process that obtains in nearly every case of insanity. The differences concern only degrees. Whenever reason is dethroned, the usurper is an exaggerated self-interest masquerading in the garb of man; a caricature of intelligence, a vampire of the soul of man.

DISCUSSION.

DR. PRATT—It has been the custom of man to deal too much with the material. They have been thinking of matter, and have not paid much attention to man. They have studied physical anatomy, pathology, physiology, but have paid no attention to the spiritual side. I rise to find fault with Dr. Buck and to take issue with him. He has said true that man acts from motive, from love; in other words, he promulgates universal love as life, and that life is love. He wants us to crucify that love and get to a condition where we are stones and shine like diamonds. Under that state of affairs the whole earth would be frozen up. Instead of using his vast accumulation of knowledge to make man realize the power of truth, he simply sits and shines. He lacks steam and he lacks love. There are two kinds of love. Take love out of life and it is dead as ashes; you can't do anything with it. You might as well try to make a steam engine work without fire. The engine is truth, and love is the fire—the motive power. Dr. Buck has the engine but he lacks the steam. A few years from now he will get it. The majority of men are now in an unregenerate state they got from love. In a little while they will become like diamonds—cold and lifeless. A proper under-

standing of love I consider to be the problem of life ; it matters not whether we are doctors, clergymen, lawyers, mechanics or philosophers, or what we are. Study love. It takes a lifetime to accomplish the study. You can't live without love. Don't crucify it, but ultimately change it into that other love that makes a man a regenerate being and fits him for that better life hereafter. Dr. Buck would wipe out all love from the human race. The world is a boomerang ; that which you send into it will return to you ; the echoes will come back to your heart. Now, all we have to do is to send out a perfect love and good-will to all men, love for the race and love for truth and not simply sit and shine, but do something that grows and makes your heart feel warmer and softer ; send that out and you will strike the chord in human nature that will make music for your heart to work by, and a nice anthem for a fellow to die by.

DR. BUCK—My friend Pratt has waxed warm about love. The word love is not mentioned in the paper. The word desire differs from the word love as does human love from divine love. I don't understand that Dr. Pratt and myself differ very greatly. One thing is very certain to my mind, and that is that the average human being, myself included, is living a good portion of his life in a sort of delusion. He is seeking happiness ; in order to get happiness he seeks for wealth, for fame, for power, and would put these in the category of love—wealth, fame and power. If we could reach from that conscious recognition of events of to-day and view the future as if past with the experience that we had accumulated, we should probably find that our ideals had changed very much in the course of that experience from what it seems to us now. And at the end of this time we would be like a little child, always wanting for something else. It will be a desire for something else to the last moment of our lives. The human mind is so constituted that it is either leading forward or running backward ; it is never satisfied to stand still. If you attempt to picture a time when there will be no change, it will lead you to a state of absolute despair. We are following a will-o'-the-wisp, and that was the plan upon which I based my paper. It states, it is true, a good many

propositions which may require a considerable time to argue out. But I have no doubt that this proposition will stand the fire; nor do I believe that when they are properly discussed and correctly understood will Dr. Pratt and myself differ in one single particular.

SLEEPLESSNESS.

By J. A. GANN, M. D., Wooster.

The daily flow and ebb of the tides; the monthly cycles of the moon; the annual recurrence of seed-time and harvest, are familiar illustrations of the system that characterizes the movements of the physical world.

That microcosm called man is also characterized by these to-and-fro movements, and we cannot doubt that *he*, the most perfect mechanism of motion, would be as perfect in the evolution of his functional cycles as is the greater world, were he living and *had* he lived in perfect harmony with the laws of his physical being.

In the central nerve centers—of which the ganglia of the fourth ventricle and medulla seem most prominent—resides a presiding energy from which are received and to which are transmitted information to and from all parts of the body. Here are received the signals of light that flash along the optic nerve; here are received, as it were, telephonic communication, intelligence from the outer world; at this place the odoriferous particles produce the final impulse of their gentle tapping as they ask for recognition; and here is passed the verdict that what we taste is pleasant or the reverse.

Here, too, presides that force which, touching the sympathetic nerve, sends the blush of modesty or the flush of shame; here is born the impulse that prompts heart and lungs to move in rhythmic measure.

It is to only one expression of all this nerve power that this

paper permits us to direct our attention. How does this mysterious force act in the production of the states "*awake*" and "*asleep*?"

What *is* sleep, that state so essential to physical well-being that one-third of life is passed in that condition? so essential to proper functional activity that when any disturbing influence arises to prevent this ebb-tide of the nerve forces for any considerable time, the nutritive process of every tissue of the body becomes, sooner or later, enfeebled thereby.

Is it, as Landois and many other physiologists affirm, a condition characterized by diminished excitability of the whole nervous system—partly due to the afferent nerves, but largely due to the condition of the central nervous system?

Foster says: "The salient feature of sleep is the cessation of the automatic activity of the brain. It is the diastole of the central beat, all parts of the body sharing directly or indirectly in it."

Peyer thinks the presence of lactic acid in the blood, certainly the product of muscular and perhaps nervous change, may be the cause of sleep.

Another author says: "The changes in the blood pressure and circulation are secondary to changes in nerve tissue." According to this view sleep is a cause instead of a consequence of diminished blood pressure or central anæmia.

Whatever may be the real cause of sleep, the condition is one of reaction; a re-massing at the central nervous system of the potential energies that have been actively engaged in different parts of the system, to be here invigorated and again sent out to engage in life's conflict. When failure of this reaction by any means occurs we have the opposite condition—wakefulness, sleeplessness, insomnia, a condition of cerebral hyperæmia.

Within the limits of health, the more active the cerebral circulation the more active the mind. This is frequently proved by exciting surroundings, by the taking of stimulating substances in moderate quantities—as tea, coffee, opium, belladonna, Indian hemp, etc., whose action is well known, yet possibly affecting persons differently. Lord Byron's statement has found many a verification

when he said he had found many a verse of poetry at the bottom of a glass of brandy.

"During sleep the diminished functional activity of all the organs of the body points to a diminished excitability of the corresponding nerve centres and a diminished excitability of the cord." The whole system is asleep, unless, as Rosenbach says, it be the nerves which preside over the sphincter muscles, which are then in a state of chronic tonic.

As a general rule this condition of cerebral hyperæmia—of undue wakefulness—begins with symptoms of excitement followed by depression. There may be general perversion of the senses; headache, with sensation of heat and constriction about the head; vertigo; sometimes a peculiar dread of fainting in certain places. One of my cases—a student—was afraid of being on the street alone; was afraid of passing a certain corner for fear of meeting a crowd and fainting.

There may be flashes of light, ringing in the ears, palpitation of the heart, weakness of memory, melancholy and even delirium. Gastric and bowel irregularities are generally present. In the severer forms even apoplectic, paralytic and maniacal conditions may exist.

Now this wakefulness may be *complete* or *partial*. *Complete* when the patient gets no sleep, as in certain cases of acute fevers, in delirium tremens, in acute mania, or under the influence of strong mental excitement. *Partial* sleeplessness is more common, and is characterized by an inability to sleep for hours after going to bed; or after being awakened, an inability of going to sleep—possibly for the remainder of the night, or with a repetition of this wakefulness and sleep.

In some cases we find certain portions of the brain asleep and others awake, as in somnambulism.

The actual amount of sleep necessary varies in different individuals, and is modified by age, soundness of sleep and individual peculiarities.

The most frequent *causes of sleeplessness* may be summed up as follows:

1st. Protracted illness, when general anæmia is present, then due to irritability of the brain from mal-nutrition.

2d. Undue mental excitement, as in students and professional men, proceeding even to brain fag and nervous prostration, when the vaso-motor nerves may be paralyzed.

3d. Imperfect circulation—principal parts of the body cold, with diminished secretion, as suppressed menses.

4th. Lesions of the digestive tract, which vaso-motor irritation is induced through the sympathetic system, increasing intracranial pressure.

5th. Valvular lesions, pulmonary obstructions due to pneumonia, bronchitis and other causes, by which stasis is produced in the right auricle and superior vena cava, producing obstruction to the return of the blood from the brain. Hypertrophy of the heart produces same result.

6th. Stasis in the inferior vena cava, in affections of the abdominal organs, as liver and bowels (gaseous distension, producing pressure upon the blood vessels); dilated hemorrhoidal veins, cessation of the menses.

7th. General arterial hyperæmia, changes in the calibre of the cerebral arteries by which increased volume is produced—frequently associated with calcareous degeneration, fullness of vessels and proportionate loss of contractility.

8th. Pain, due to inflammatory or neuralgic condition of any organ or tissue, or to mechanical irritation; the locality of the pain determined largely by objective symptoms.

Prognosis.—The prognosis is generally favorable if the patient will submit to proper hygienic measures.

The tendency, unless checked, is to more fully developed forms of catarrhal congestion and the liability to secondary lesions, as softening, hemorrhage, paralysis, etc. It is more serious in the young than in the adult. The hyperæmias due to paralysis of the vaso-motor centers, to alterations in the quality of the blood, to abnormal central excitability, or to diseases of the digestive canal,

will recover. To this might be added functional disturbances of any organ, or inflammatory, where serious pathological changes have not taken place. On the other hand, when the wakefulness is due to organic lesions of the vascular system and respiratory apparatus; when alteration of tissue has taken place in important central structures; when the sleeplessness is no longer the result of perverted function but of organic change, man's ability to aid no longer avails.

Treatment.—The treatment of sleeplessness may be hygienic and therapeutic, either ~~&~~ both, and in no abnormal physical condition does the relation between cause and effect demand closer scrutiny or promise better results. In fact the treatment lies largely in regimenal measures, and the avoidance of all sleep-inducing medicines, except it may be, in some rare cases, at the outset of the treatment when possibly some form of the bromides is preferable, but which should be discontinued as soon as a betterment of the condition ensues; avoiding opiates, whose natural tendency is to diminish the activity of assimilation.

In one of the most marked cases of sleeplessness that I have met (a prominent lawyer, whose name is perhaps known to most of you), gentle bathing, and then rubbing with pure olive oil, and after this a light meal, induced sleep as refreshing as a child's.

In the sleeplessness of professional men and nurses, watch well the condition of the digestive system, as enfeebled digestion is apt to be present.

In cutaneous diseases and fevers, sleep is frequently induced by warm baths and gentle friction, while in more vigorous conditions sleep is frequently induced by massage of bowels and limbs.

The general rule is: keep the blood toward and upon the surface of the body and the lower extremities, and gently stimulate organs remote from head, as by gentle exercise or rubbing, and giving the stomach some light food.

In the sleeplessness from general anæmia the diet is obviously of prime importance, cod liver oil and cream entering into the count.

The occasional insomnia from over-mental exertion is frequently overcome by a hot sponge bath, brisk rubbing, or exercise, and the application of a towel wrung out of cold water and applied to the base of the brain.

While not forgetting the soporific hot pillow, we would suggest the following plan recently published in the *Lancet*:

“The sufferer from insomnia, after taking a deep inspiration holds his breath until discomfort is felt. He repeats the process a second and third time. As a rule this suffices to induce sleep. The idea is that it causes a slight degree of asphyxia. It may also help from the mental effort of concentration, with which all are familiar, as in counting, repeating a list of familiar words, etc.

Treatment: Therapeutic.—Of necessity we point only to the head lines, comparative materia medica affording us a closer view.

Insomnia of students and business men. Gels.

- from gastric irritation. Ars. and plenty of hot water.
- from chronic gastric disturbances with gaseous disturbance. Nux, china.
- from enteric causes. Bell., cham., lycop., sulph.
- from pulmonary causes. Bell., bry., verat. vir., phos.
- from melancholy. Cimicif.
- from mental inability with tendency to delirium. Hyos.
- from mental excitement. Coff.
- after fevers and exhaustion. Mosch.

Chloral hydrate produces a sleep more like natural, but like the bromides, its action on heart and stomach must be watched, as they are depressing.

The Faradic current has helped us in several cases. At the risk of being classed with the polypharmacists, I submit the following, which, when I did not succeed in finding what I thought was the exact similitum (but which was perhaps nearer than I was aware), produced most delightful results in persons of highly excitable nervous organizations, with symptoms apparently all negative, so far as symptomatology was concerned, but *positive* that they could not sleep:

Potass. brom. ʒiv.
Ammon. brom. grs. xv.
Aqua ʒiv.

Flavor with a few drops of oil of peppermint and sassafras.

Take one or two small teaspoonfuls before retiring. May repeat during the night if necessary.

The above formula is not original with me, but was obtained of a physician of New York City, whose reputation in the treatment of nervous conditions is not confined to the city or state in which he lives.

What the unusually small quantity of brom. exerts with the potass. brom., was not explained to me; but that the combination acts better than the latter remedy alone is capable of demonstration.



BUREAU OF GYNÉCOLOGY.

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DRY HEAT IN CYSTITIS OF THE FEMALE.

By C. HOYT, M. D., Chillicothe.

The use of dry heat in cystitis of the female is doubtless something rather new to the profession generally, and I shall attempt in this brief paper to describe to you the apparatus necessary to carry out this method of treatment, as well as the proper mode of using the same. I shall also attempt to demonstrate its usefulness in cases of cystitis generally, but more particularly in those chronic cases of long standing, where there is thickening of the walls of the bladder, as in the so-called parenchymatous variety. The walls of the bladder are composed of a mucous lining internally, and a muscular coat externally, which is partly covered by the peritoneum. Between these structures are interposed layers of connective tissue. Therefore, books speak of catarrhal, sub-mucous, sub-serous, and parenchymatous cystitis, according to the fancied location and extent of the inflammatory process. In reality, in most cases, these forms are more or less mixed up with one another, and it is often impossible to decide fully upon the exact location and extent of this inflammatory process, unless it be in very recent cases of the catarrhal variety.

So you will readily understand that the diagnosis of the exact variety is often a very difficult task, unless we understand that the different forms are more or less blended, one with another. If the case is one of long standing, we must remember that the whole structure of the bladder is more or less inflamed and congested, as well as the connective tissue surrounding it, and means both local and constitutional must be used to overcome this long-standing difficulty.

This chronic congestion and inflammation must be relieved, the dilated blood vessels caused to contract, and the circulation of the parts stimulated so as to force the blood away from these diseased structures, before we can expect our even perfectly selected remedies to help in bringing about a cure. It is in just these old, tough cases, of long standing, where I would most earnestly advocate the use of dry heat as a most reliable adjuvant to the carefully selected remedy. I am indebted to Dr. Philip Porter, of your city, formerly of Detroit, Mich., for my knowledge of the use of dry heat in cystitis, and so far as I know he is the originator of this valuable discovery.

I will now proceed to describe to you his apparatus, as well as the manner and methods of using it. The heater is similar in size and shape to the ordinary double canula catheter, only it is closed at the point instead of being open as is the case with the double catheter. It is insulated with hard rubber to within about two inches of the point, which is silver or nickel-plated. To the upper branch of the other end of the heater is attached an ordinary piece of rubber tubing four or five feet in length. The other end of this tubing is connected with the vessel containing the hot water. The lower branch is supplied with a stop-cock to prevent the waste water from running out too rapidly and using an unnecessary amount of water. All that is necessary is to allow just enough of the hot water to flow through the instrument to keep it heated to the required degree. To this lower branch, beyond the stop-cock, is attached another piece of rubber tubing to convey the water to some convenient receptacle. The best way to keep up an even supply of water at the desired temperature is to have a tin vessel, holding one or two gallons, and have this arranged on a bracket over a gas jet or a coal oil stove. A thermometer should be fitted to the side of the vessel so as to see and maintain the water at the desired temperature. There should be an opening at the side of the vessel near the bottom, into which a tube or thimble should be soldered and allowed to extend out half an inch, so that the rubber tubing can be pushed over it; or instead of attaching the tubing at the bottom of the vessel it can be put into the water at the top of

the bucket and it will thus act as a syphon. This tin bucket can readily be obtained at any tin shop at a trifling expense.

Now, when everything is in readiness, the patient should be placed upon the back, on a convenient table or bed, and after lubricating the heater it should carefully be inserted into the bladder, care being taken to have the bladder emptied before inserting the heater, as the heat from the instrument will cause the bladder to contract, force out the urine, and thus soil the patient and her surroundings.

In the beginning the water should be about 110° or 115° F., and gradually increased from time to time as the patients become accustomed to it. After a time they will bear the water without discomfort at 130° , or even higher. The patient should be your guide in regulating the temperature of the water, at all times never using it hotter than she can bear without discomfort. The length of time for using the heat should be about ten minutes at the first sitting, gradually increasing the time to half an hour, and never going beyond that limit. If used too long it causes weakness and prostration.

This treatment should be repeated two or three times per week, according to the requirements of the case and the patient's ability to stand it. There is usually marked improvement in these cases from the first treatment, as is shown by the less frequent desire to urinate, as well as a lessening of the pain consequent upon the act. The pelvic congestion, weight and soreness is speedily relieved and a better circulation established within the walls of the bladder and pelvic organs generally, and the marked improvement is plainly visible both to physician and patient. This method of treatment is expected to do away with the old, irrational practice of washing out the bladder with water or medicated solutions of various sorts and kinds. We firmly believe that the use of dry heat as described in this paper, combined with the carefully selected homœopathic remedies, will do more for these poor sufferers from chronic cystitis than any other means at our command, and I would earnestly recommend that you give it a trial whenever such cases come to you for treatment.

DISCUSSION.

DR. CLAYPOOL—For the use of dry heat in the treatment of cystitis, inflammation of the cervix, inflammation of the rectum, in ovarian irritation, and ovarian neuralgia, I have adopted a simple device, as my friends in the profession know, and an inexpensive one. I use no special instrument. I used simply a male catheter, in which the eye is plugged up, and attach to this a rubber tubing through which I conduct the hot water. I have had an instrument prepared for it, though the other is just as well. Dr. Hoyt, in his paper, gives Dr. Porter the credit of introducing this idea of dry heat to the profession. I think the credit belongs to me, as I mentioned it two years ago at the Institute, and asked the profession to investigate it. Dr. Porter has had made a special instrument, but I claim priority of idea, and I think if you will look the matter up you will find this to be true. I want you to investigate this matter of dry heat in the treatment of chronic cystitis, chronic urethritis, inflammation of the cervix, and inflammation of the rectum and even of the ovaries. You will find it to be a good thing.

DR. ALLEN—About a year ago a gentleman in Minneapolis or St. Paul sent me a somewhat lengthy article, with a wood cut, illustrating something of an apparatus of this kind for the application of dry heat, claiming the priority of invention and discovery and application. I referred the matter to Dr. Porter. He responded that the author had stolen his invention.

DR. FERRIS—Something ought to be said about the *materia medica* for these troubles—something about the homœopathic remedy. I was born and raised in the Eclectic Institute, and they talk more homœopathy there than has been talked here to-day. *Cantharis* will cure these cases if it is indicated; *apis* will do it; *bella-donna* will do it. This kind of business is like hunting after the fleshpots of the allopaths. You are not studying homœopathy. It

is all well enough to have a certain routine of remedies for these troubles constantly at hand ; but once in awhile you will find a remedy indicated that is not thought of once in a hundred cases. Of course, if there is a mechanical obstruction in the canal, take it out ; if a stone in the bladder, take out the stone. I was called to a case of the most stinking *foetid diphtheria* ; it was one of the nastiest I had ever smelled in my life. I had been doctoring diphtheria with belladonna and lachesis, because they had had a better action in diphtheria than most any other remedy. It was about ten o'clock at night when they called me. When I got to the bedside I found my belladonna was all out ; the same with my lachesis. I looked over the case again and found a bounding pulse, probably the hardest pulse that I had ever put my finger on. I gave *Veratrum vir.*, and the next morning the case was nearly well. Do the same thing with cystitis. Give the homœopathic remedy. When we follow after the allopathic procedures and theories we make a mistake every time.

DR. CLAYPOOL—There is nothing in the use of dry heat, that I know of, that is contrary to the selection of the homœopathic remedy. It is very easy for the doctor to speak of giving the proper homœopathic remedy ; you cannot always find it ; then there is an opportunity for the application of common sense, and dry heat applied as directed is common sense.

DR. BECKWITH—You don't find any better success in the practice of to-day from what it was forty years ago, when the homeopathic remedy was strictly adhered to.

HISTORY, PATHOLOGY AND ETIOLOGY OF SALPINGITIS.

By **ALBERT CLAYPOOL, M. D., Toledo.**

To me has been assigned the duty of presenting the "History, Pathology and Etiology of Salpingitis."

Such a paper can only be a condensed statement of what can be read in any special work of late date on Gynæcology. I would have much preferred to have written on some subject wherein I could have introduced thoughts, with perhaps no originality, but sufficient individuality to have provoked discussion. But as the Chairman of this Bureau has assigned to me this task, and it may be the basis for a discussion on the other fellow's paper, I will do the work as best I can, and hope that if my paper excites no interest, the others may.

Let me say, in preface, that I shall present no original matter, as the whole of the material is taken from recent works, principally from "American System of Gynæcology." Fortunately for me, there is practically nothing in the older works on medicine treating on this interesting subject.

All history of Salpingitis, worthy of notice, has been written during the last third of a century past, and much the larger part of that during the latter third of this time. Until a very recent date, all symptoms of diseases of the Fallopian tubes have been assigned to cellulitis, or disease of the ovaries. Up to forty years ago, diseases of the Fallopian tubes did not play any part in the writings on diseases of women. Prior to 1857, observations on the pathology

of the Fallopian tubes can be found in the writings of Sager and others.

In 1857, Bernutz made public the first account of a systematic research on the nature and pathology of pelvic inflammations. He showed, pathologically, that the disease was of the tubes and ovaries, accompanied by peritonitis, and that it rarely existed except as a phlegmon in puerperal cases, and that cellulitis had no influence in causing the symptoms. This is the general accepted doctrine to-day.

Following Bernutz' publication, there were numerous records of autopsies showing the relations of the tubes to puerperal sepsis, and minute descriptions of the pathology of salpingitis, by Martin, Scanzoni, Voche, Barnes, and others. C. Hennig gives one of the most complete accounts of the pathological anatomy of the fallopian tubes.

Practical surgical treatment was not taken into account prior to 1873. In that year, Hegar removed the tubes, together with the ovaries, but it was done for dysmenorrhea and ovarian neuralgia. In the same year, Battey removed the ovaries for similar reasons. But neither of these operators, in their earlier reports, refer to diseases of the tubes. Lawson Tait claims to have removed the fallopian tubes for diseases as early as 1872, and his later writings and remarkable surgical skill have done more than any other among English-speaking people to place the operation for salpingitis on a permanent foundation.

In 1873, Dr. W. Gill Wylie took the generative organs, after an autopsy in which the cause of death was given as peritonitis, due to the bursting of an abscess of the right ovary, and demonstrated the fact that it was the right tube instead of the right ovary, which had burst and caused the peritonitis. He also found the left tube largely distended, with a greenish colored fluid. Dr. Wylie made an exact drawing of the specimen and reported the case in vol. vi of the *American Journal of Obstetrics*. I believe this to be the first practical demonstration in America of a true salpingitis.

In 1876, Dr. Noeggerath published his views on latent gonorrhea, and gonorrheal salpingitis. His opinions attracted wide

attention, and led to a very prevalent, though erroneous, belief that gonorrhea was the cause of nearly all serious diseases of the fallopian tubes.

Previous to 1882, many surgeons removed the ovaries—Battey's operation—for the relief of dysmenorrhea, ovarian neuralgia, and reflex nervous troubles; but no case is reported, in this country, where the operation was done because of disease of the tubes. In May, 1883, Dr. W. Gill Wylie operated for the removal of diseased fallopian tubes, and in the same year Dr. T. G. Thomas published "A Contribution on the Subject of the Removal of the Uterine Appendages for Prolonged Menstrual Troubles, with Recurrent Pelvic Inflammation." This was rapidly followed by numerous operations on cases of salpingitis.

Now, this operation that was so freely denounced a few years ago, is eagerly sought after by gynecologists.

It is almost incredible that so grave and common an affection as salpingitis should have been for so long a time, if not known, at least not practically considered and treated.

Pathology.—In studying diseases of the tubes, remember that once a month the tubes and the uterus become engorged with blood, and thus undergo a change likely to aggravate or disturb the course of disease or repair; that once a month ovulation takes place in one of the ovaries, and that the ovum, with a certain amount of serous fluid, escapes, and is supposed to be carried by the tubes into the uterus.

As a rule, acute salpingitis will be found associated with either acute or chronic endometritis—catarrhal, specific or septic. Chronic salpingitis will be found, nearly always, associated with pelvic peritoneal adhesions involving the broad ligament and ovary.

Salpingitis is often found complicating dermoid, ovarian and fibroid tumors, and will often account for the unusual pain felt in such cases.

In salpingitis, like endometritis, all the tissues take part in the acute stage; the whole organ is enlarged and greatly congested, the swelling closing or filling up the lumen, and at first all the tissues

are softened. At the fimbriæ, if not over the whole surface, peritoneal exudation has taken place and glued the organ to the ovary or any surface that it has come in contact with. During the acute stage of the first attack of peritonitis, the adhesions are easily broken down and separated from the enlarged, soft and friable tubes, apparently saturated with the serous exudation. The mucus membrane is swollen, so that the lumen is occluded, or filled with muco-purulent secretions, varying in character with the degree or nature of the disease.

In septic cases of an active or virulent type the tube and other tissues may be bathed in pus and very few adhesions formed; the disease is too powerful to be covered up or shut in by adhesive exudates, the latter as soon as secreted being converted into septic fluid.

In less virulent cases the swollen tube rolls backward behind the broad ligament, covering the ovary and becoming adherent to the posterior surface of the broad ligament, the floor of the pelvis, and the rectum. Again, the end of the tube may be adhered to the side of the pelvis, or low down in the Douglas' cul-de-sac. Usually the left tube and ovary are lower down in the pelvic cavity than the right.

If the uterine end of the tube remains open, the secretions may drain away and leave the tube quiet, and in time give the patient but little trouble. But, as a rule, a chronic salpingitis takes the place of the acute, for the lumen affords very imperfect drainage. The chronic catarrh of the tubes gradually causes a thickening and induration of the mucous membrane, and in time, by pressure, infiltration and degeneration affects all the tissues of the tube and increases its size from a diameter of a quarter of an inch to an inch or more, usually being club shaped. Or the secretions may be retained and greatly distend the tube, or be converted into pus and form an abscess. The retained fluid may be thin and watery, light colored; or it may be thick and gluey, purulent, mixed with blood, or have a greenish color. The tube may be constricted in places or convoluted. A part of the tube may be hard and small and the rest distended and thin.

In hydrosalpinx, the tubes may be enormously distended, holding even a pint or more.

In pyosalpinx, the pus may be slight in quantity and thick, and the walls of the tube thickened and in a state of more or less fatty degeneration. Or the pus may be thin and the quantity large, and the walls of the tube correspondingly thin and distended.

In hæmatosalpinx, the blood is usually coagulated and the walls of the tube thickened, but sometimes it is tarry and composed largely of pigment, closely resembling retained menstrual blood found in the uterus when there is complete occlusion of the vagina.

In tuberculous salpingitis the appearance of the tube is not especially characteristic. The lumen may or may not be patent. On section the tube appears dilated and its walls are thickened, not alone from hypertrophy, as in non-specific chronic salpingitis, but from deposits of caseous material, masses of the latter also filling its interior.

Etiology.—It is hardly probable that a salpingitis starts up as a primary disease independent of any disease of the uterus or ovaries. It is generally conceded that it is due, in most cases, to extension of inflammation from the uterus to the fallopian tubes. Endometritis, from any cause, may result in salpingitis. Previous to puberty, the generative organs are inactive and seldom inflamed, and we do not expect to find salpingitis.

Virgins are not very liable to the disease. Certain congenital deformities may, by obstruction, result in disease of the fallopian tubes. Poorly nourished women and those of a tuberculous dyscrasia are subject to catarrhal inflammations, which may invade the uterus and extend to the tubes.

Septic endometritis, following labor or abortion, is probably the most frequent cause, and more likely to follow abortion than labor.

Gonorrhea may prove to be a very dangerous disease by extending from the vagina to the uterus and from there to the tubes and the peritoneum. Syphilis may cause the disease in the same way it produces otitis.

Any condition that leads to hemorrhage into or about the tube

or tubal pregnancy, may cause salpingitis. Abnormal ovulation may result in inflammation, adhesions and salpingitis. Anything that occludes or diminishes the lumen of the tube may cause the disease. The use of intra-uterine stem pessaries may produce a septic endometritis, and intra-uterine injections may force irritating fluid into the tubes and cause inflammation.

Uncleanliness of the hands, sponges, and instruments of physicians making local examinations or in operating, may cause septic endometritis and end in salpingitis. The use of an uterine repositior in forcibly changing the position of the uterus may light up an inflammation. The various kinds of tents used to dilate the uterus and also the vaginal and uterine tampon, are successful agents in starting a septic endometritis.

In fact, anything that will produce an inflammation of the uterus or ovaries may be classed as a cause.

SYMPTOMS, PREVENTION AND THERAPEUTICAL TREATMENT OF SALPINGITIS.

By MYRON H. PARMALEE, M. D., Toledo.

Symptoms.—In acute cases, the symptoms which will call your attention to an extension of a catarrhal, specific or septic inflammation to the fallopian tubes, are not very well marked, nor do they differ from those of a localized peritonitis, ovaritis or cellulitis.

A chill more or less prolonged, a febrile rise to 100° or 102°, accompanied with, or soon followed by pain in one or both pelvic sides, constitute in general about all of the subjective symptoms which will be observed.

There are some differences which careful observation may soon notice. In peritonitis the pains will most likely be more sharp,

darting, and extended over a larger surface than either of the others. In cellulitis it is more of an aching, while in salpingitis, if it be at all characteristic, it will become of a burning, stinging nature. The fever, taking a distinctively remittent type, lasts from a week to ten days, and subsides if the case does well with all of the other symptoms at that time.

In salpingitis, by the second day objectively, can be made out a tumor latero-posteriorly to the uterus, with some fixation of that organ. Now, this tumor will not increase in size as rapidly as that of a cellulitis, and yet will generally be better defined than the swelling of a peritonitis; but the fixation of the uterus and immobility will not be as marked as in the latter case.

In presenting this outline of the symptoms in acute cases which may do well, you will remember that such symptoms will be very uncertain indeed, and it will require at times a very skillful gynæcologist to arrive at any certainty out of the obscurity in which the real seat of trouble will be masked. In cases where progress and the condition becomes chronic, the symptoms will vary. Repeated rigors, fever, night-sweating, a tongue with a red edge or brown streak up the center, will generally mean the occurrence of a pyosalpinx, which in its train bears a myriad of nervous symptoms, reflex and septic in nature, expressed through the medium of head, back, stomach and stools.

In hydrosalpinx there is usually not nearly so much disturbance of a general character, though one symptom combined with those which point to pressure within the pelvis, is quite characteristic. That is, the recurrence of pain *prior* to each menstrual period for from three days to a week. Some gynæcologists have thought that hydrosalpinx could always be diagnosticated by those discharges of clear, watery fluid which sometimes takes place. Now, in my experience, this particular symptom is so rare as to be of little worth; but when it does appear may render a diagnosis easy.

In salpinx, when repeated acute attacks have come and gone and middle life has been reached, or perhaps marriage and its duties have aggravated her troubles, the appearance and sufferings of these poor women is indeed pitiable. Generally with wan faces,

trembling limbs, disordered digestions and racked with trifacial neuralgias, they come to consult you, with morphine for their only nepenthe, as a drowning man might clutch at a straw. The dread which some of them exhibit over the advent of the menstrual epoch has not its equal in any other of the long list of diseases. Dr. Porter, in closing this symposium, will tell you just what to do with such painful cases.

These few suggestions as to the symptoms are about all that we can offer. Truth to tell, if there was more that could be called characteristic in its symptomatology, salpingeal inflammation would not so long have been confounded with and mistaken for peri-uterine cellulitis or pelvic peritonitis. And in my own cases I have always found peritonitis accompanying a salpingitis, so that a distinction is not absolutely necessary, perhaps.

Prevention.—In this direction much has been attended to of late by gynæcologists, that formerly was thought to be useless precautions. Experience has taught us that a uterus afflicted with even a simple catarrhal endometritis must be drained thoroughly by dilatation of the cervix and irrigating cleanliness, or that inflammation will inevitably, if local measures should be instituted for its cure, however mild, extend to the tubes.

In gonorrheal inflammation it is even more urgent than a simple endometritis. In such cases, then, see to it that all discharges can have free exit, and the danger of extension to the tubes will be greatly lessened.

After miscarriage or uterine hemorrhages, look to it that all remnants of the secundines and all clots are removed, in order to prevent the septic mischief which had in the past so frequently taken place. In this connection, the ordinary tamponing of the vagina cannot be too severely condemned. It has been advocated by those eminent in the past, but its employment is unsurgical to-day, and it has always been nasty and putrid. It violates every principle of cleanliness, and it is at best but a patching makeshift. Clean out should be the procedure instead of damming decomposing products in, and thus mischief will be prevented in the fallopian tubes.

Keep a perfectly clean and sound uterine. For if you should be careless in this direction you will inflict injury and suffering, where your only intention has been to relieve. As a last and the most effectual preventative of salpingitis, if you have any female patients that can be warned in that direction, bid them to beware of gonorrhea.

Therapeutics.—The remedies to which your attention will be called in any particular case it will be impossible to foreshadow here; but a few generalities may be of service.

And first of all I would place

Apis Mellifica.—Affects especially the right fallopian tube; stinging pains, similar to bee stings; numbness of the right ovarian region is very characteristic; sensation as if something would break in the abdomen if much effort was made at stool; enlargement in right ovarian region, with pain and cough in left breast; pains in pelvis that are made worse by heat; better from cold water.

And the next most useful to me is

Iodium.—In scrofulous people with a low cachectic state of the system; premature and too copious menses, dwindling away of the breasts, and great weakness when going up stairs—left side more particularly; night-sweats, slow fever, diarrhœa.

Bromium.—Adapted to young people with light hair, blue eyes and fair skin; particularly in those pains which come before the menses appear—all the symptoms worse from evening to midnight; better while in active motion; epileptoid paroxysms caused by the pains.

Other remedies which will be indicated, though these three have been of the most service in my hands, are Arsenicum album, Terebinthina, Baptisia or Lachesis, which in each case must be individually given, as the indications appear.

And now a word as to palliatives.

Hahnemann has said, “In so serious a thing as the saving of human life, any neglect to make yourself a complete master of all that may be known becomes a crime.”

It may be necessary, inasmuch as our *materia medica* has not

yet reached its millenium, in some of these cases, to exhibit temporarily Morphine hypodermically, or in rectal suppository Chloral, Atropine, the Bromides or Svapnia; but never place these agents where your patient can control them. Never let her know, is the better way, what you may do purely for palliation, and then no habit will be formed by her which can undermine her constitution and add to her sufferings. Know how and when to use these agents. Make all knowledge to serve you in an emergency; but remember that the indicated remedy during the intervals of pain is to be and must be solely relied upon if the case is at all curable. I have not seen that palliatives interfere with the action of the indicated remedy. Some think that they do. My opinion is, that judiciously used they are an aid instead of a hindrance, but need a steady brain to guide their exhibition.

DISCUSSION.

DR. FERRIS—This palliative business, whether it does any harm or not, whether it interferes or not with the action of the remedy, I will not attempt to say; you that have wider experience know better, but you all know well this, that time and time over again it covers up your case, and it spoils your case unless you could get a clear indication, and if you give one solitary palliative remedy that interferes with the action of the remedy given you have spoiled your case so that you will have to get a new hold on it, and work on a new line. I have always believed that the indicated homœopathic remedy was all-sufficient. I don't think that one of you for one moment doubts that; but just as long as you go hunting for the palliatives you are introducing that which will spoil your case and make your work nil. There is no use denying it; if we float the homœopathic flag we must stick to it, or we are allopaths or eclectics. Your rich materia medica, rich in all these symptoms of salpingitis and cystitis, and all the symptoms of these fashionable diseases, is amply able to cure your cases. It takes time to hunt up

the remedies, but when you do hunt them out and apply them they give perfect satisfaction, and you wont need to hunt up any palliatives.

DR. PALMER—I have had a couple of cases of salpingitis. The first was a lady of forty years of age, who came to my office six months ago, giving this history: About seven months before she had been taken down with what was termed neuralgia of the bowels—everything in that part of the country is called by the physicians neuralgia. She was dull, her tongue was coated, her bowels constipated, with all the signs of inflammatory action. This went on for four or five days; she claimed it was some sort of enlargement in the abdominal region. She had had a slight attack of this “neuralgia” before. It also commenced at that time with a slight enlargement, and that ran a year notwithstanding treatment. There was considerable uneasiness and some pain in that region for some time, perhaps five or six weeks. Then she began to notice what she called the leucorrhœa—a yellowish, thinnish discharge, and this swelling, which this paper speaks of, going all around. That is what she had, with more or less pain in addition; a terrible uneasiness throughout all the abdominal region. She could not bear the least jar. In riding in a buggy she complained that the springs were not limber enough, it jolted her so. She couldn’t get around on her feet. She bloated up, especially before menses came on, and it seemed impossible for her to do anything for some time. I immediately diagnosed the case as pyo-salpinx, or occlusion in that tube. I told her we would do the best we could for her without an operation, and have done so right along. She is much improved. She can be on her feet more. She is in a condition where she thinks she is better; but the minute she undertakes to do anything she is worse. The other case had a long history. She passes matter by the bowel. After that closed up, an abscess formed in the right labia and discharged, and the physician that treated it before me said it was a simple phlegmonous trouble. But the history proved to me that there was a trouble higher up. I have fully determined that the trouble is the fallopian tube.

DR. PARMALEE—I am sorry that Dr. Porter is not here to complete the paper. All the papers must go together, or else the subject is left unfinished. What measures he was going to support in the way of local treatment, I have no means of knowing; but as far as surgical treatment is concerned there is but one way if the tubes become affected, and that is to cut them out; that is all there is about it. The operation for taking them out is a very simple one; an incision of an inch and a half in the median line in the abdomen, just large enough for you to put one finger in to find how many adhesions there are; if they are not many you can break them down easily with the finger, and if the tubes are diseased they can be taken out through that incision.

Tait would, of course, put on a Staffordshire knot. I have had no use for the knot in the only case I have had. That is still a matter of discussion among gynæcologists whether the Staffordshire knot in the shape used or simply the double strand put through the tissue and crossed and tied on the other side is best. I prefer the latter, and tie on either side of the pedicle. There is no danger of this slipping, and is much easier of application than the Staffordshire knot. Of course, in removing these tubes and ovaries one thing is imperative, that none of the liquor within the tube shall escape into the abdomen. Latterly they have been using hot water injections during the operation, claiming that it will lessen the shock, and at the same time it would render the operation naturally aseptic.

I am sorry that Dr. Porter is not here to carry forward the argument upon the operation, because it is one which, if you are able to recognize early, may save your patient from slipping into an untimely grave. I have said enough as to palliatives. What I said was simply in defense of a measure that you and every one will be compelled to do at times. The homœopathic materia medica, grand as it is in its results, certain and complete as it is in its application, and the results that flow from its correct understanding, is not necessarily the whole world, nor will it reach all the cases that come in your care.

DR. ALLÈN—There are one or two points that I do not observe noted bearing upon this difficulty. When Lawson Tait called our attention several years ago, early in the seventies, to pyo-salpinx as a specific poison, he called attention to the character of the discharge, and also said that in his experience a large majority of the cases were of this specific character. Now, when we add to this specific character of the disease, a knowledge of the therapeutic action of our sycotic remedies, especially Thuja and Natrum Sulphuricum—the latter of which I believe to be the best indicated remedy that we have in this difficulty—we have a wonderful control over this disease, and very rarely will we be required to resort to palliatives. I think my friend, Dr. Parmalee, is a little wrong on this question of palliation. If he will carefully select his remedy, carefully individualize the similimum every time, not make any loose shots, nor jump at conclusions, he will control these cases without palliatives.

DR. BECKWITH—Some few months ago we made a post-mortem in Cleveland, upon a lady who had gonorrhœa many times during twenty years. Each of the surgeons in attendance expressed an opinion as to the condition in which the tubes would be found. To the surprise of both surgeons, the tubes were found absolutely healthy.

DR. CLAYPOOL—I stated that the published views of Dr. Noeggerath on gonorrhœa and salpingitis had been generally accepted; but I stated in my conclusion in my paper that it might be a dangerous disease by an extension from the vagina to the uterus, and from the uterus to the tubes. I said it was not a common cause. I have never seen a case of gonorrhœal salpingitis to my knowledge. I have seen salpingitis and I have seen the tubes, their appearance and color, and no two cases of them that I saw were just alike.

BUREAU OF OPHTHALMOLOGY AND OTOTOLOGY.

O. A. PALMER, M. D., CHAIRMAN *pro tem.*, Warren.

R. D. TIPPLE, M. D., Toledo.

O. A. PALMER, M. D., Warren.

F. F. CASSEDAY, M. D., Kansas City.

JEQUERITY BEAN IN THE TREATMENT OF TRACHOMA.

By R. D. TIPPLE, M. D., Toledo.

But very little has been said or heard about this drug during the last few years, doubtless because of the many bad results which have attended its careless use, as a consequence of which it has been almost entirely abandoned by the profession. The object of this paper is to restore it, if possible, to its proper therapeutic position or situation.

From experience in its use, I deem it, if properly applied, one of the greatest human blessings, medically speaking, in the treatment of that most formidable and obstinate of eye diseases, ophthalmia granulosa, with its many complications. About five years ago or more the use of this drug was highly recommended by a Frenchman, who gave the formula for its preparation as well as directions for its application, and the medical profession generally became very much interested in it as a prospective specific, believing that a new era was about to dawn upon the treatment of one of the most troublesome and perplexing of all eye disorders. Consequently nearly every physician, specialist or otherwise, cried "Eureka;" but, unfortunately, it was soon discovered by many that the new discovery was not all a blessing, as numerous bad results were being reported, many eyes were being destroyed, and finally physicians became alarmed at its use, and to-day it is almost entirely abandoned. And why were there so many bad results? Simply because we were instructed not to restrict the effects of the drug in any way or we would not get the desired effect, which, in

my experience, has been proven to be a mistake. And why a mistake? Because of the difference in individual susceptibilities. I have never to my knowledge, except in one or two instances, possibly, had any unfavorable results from the use of this drug, and those were in cases where I had no opportunity to watch the effects of treatment, being cases that failed to report as ordered, probably because they were alarmed at the too profound effects of the treatment. When I speak of bad results, I mean a very active artificial diphtheritic inflammation, attended with great swelling and infiltration of the lids and conjunctiva, both palpebral and ocular, compressing the blood vessels and lymph canals, intercepting the nutrient supply of the cornea, resulting in necrosis, sloughing, etc. Now, the secret of success in the use of jequerity evidently consists in watching and mitigating its effects, if they are too violent, as no one can anticipate them. If violent symptoms should develop suddenly, within twenty-four hours from the time of the first application, atropia, four gr. sol., in connection with the saturated solution of boracic acid, should be instilled into the eye every hour or two, in connection with hot water compresses and the internal administration of hep. sulp., arsen., rhus tox., etc. The pathologico dynamic condition produced by the local action of the bean, is an artificial diphtheritic ophthalmia. We all understand that diphtheritic ophthalmia, as a natural disease, is very serious and dangerous to the eye. Fortunately, however, for us, cases in this country are rare. Of course, the artificial condition thus produced does not assume the same malignity that attends the natural disease. In this artificial disease we usually have a membrane covering the conjunctiva, which persists sometimes for days; its disappearance is generally followed by a disappearance of the granulations. How this is done is not exactly clear; whether by strangulation of the granulations, thereby depriving them of blood supply, or by affecting the vaso-motor nerves and in that way indirectly influencing the nutrient condition; at all events, the granulations that had previously obstinately resisted all other local means, promptly disappeared with the subsidence of the inflammatory action.

Not all persons are equally susceptible to this treatment, and occasionally one is found who is not susceptible at all. I have had

a few cases where not the slightest impression, apparently, could be made. Those cases that are moderately susceptible are frequently cured by repeated applications, at intervals of a day or two, even if no deposit results. I have a case at present, under treatment, in which the patient, a gentleman, had been blind, or nearly so for several years before coming under my treatment, one eye being entirely destroyed, the other having a pannus-crassus, diffuse cornetis, ulcers, etc., he having had to be led about for a year or more. I made a strong application of the jequerity, considering myself safe from censure in case of any unfavorable results, as it was not possible to put the eye in a much worse condition, he at the time considering himself hopelessly blind. Strange to say the medicine had but the slightest effect. The application was repeated several times, at intervals of a day or two, for several weeks, followed by a gradual improvement, which seems to have continued. I am happy to say that the patient sees sufficiently well to transact ordinary business, the inveterate granulations having all disappeared as well as the pannus corneal cloudiness, etc. It is needless to say that the gentleman is more than satisfied with the result. I sometimes use the bean in the form of a powder, dusted over the inside of the lids in small quantities, and sometimes a watery infusion, using one bean to a drachm or two of quite warm water, the bean being crushed and ground and allowed to saturate a few minutes, the lids being everted and the solution applied directly to the inner surface with the dropper, the lid eversion being maintained for some little time and several drops applied at intervals of a few seconds. I have used this treatment in a large number of old, inveterate cases, with the most happy results; cases that had resisted all manner of astringent and caustic treatments, as well as internal medication, and had been given up in despair as helpless and hopeless.

SYMPATHETIC OPHTHALMIA.

By O. A. PALMER, M. D., Warren.

Mr. D. came to my office for consultation in regard to his eyes. I soon found that his left eye was totally destroyed. Some years before an arrow injured the left eye near the center of the cornea, causing extensive inflammation of the cornea and iris. The cornea was not punctured and the inflammation in it soon subsided, but the inflammatory action in the iris continued very severe for some time. There was a large amount of plastic lymph exudation about the iris, which tied it down to the anterior capsule of the lens. The area of the pupil was invaded by this effusion, which caused occlusion; lymph collected in the posterior chamber, caused the iris to bulge forward and give the pupil a funnel shape. The effused lymph, mixed with the contents of the anterior chamber, produced a milky appearance of the aqueous humor. A few whitish opacities could be seen, which were caused by deposits of lymph on the posterior surface of the cornea. Without very much change, the eye remained in this condition for six or eight years. Gradually a sensitive and irritated condition of this eye came on, so that bright light, heat, cold and overwork would cause pain in the eye and head. About five or six weeks after this sensitive and painful condition commenced in the left eye, the right eye began to be irritated and give evidence of disease. After a careful examination, I gave it as my opinion that sympathetic inflammation was the cause of the trouble in the right eye, and that it was doubtful whether it could be saved. An immediate enucleation of the left eye was advised, so as to remove the exciting cause of danger in its fellow. He consented to the operation, which I performed the next day.

After being put under the influence of ether by an assistant, I introduced a speculum to dilate the palpebral fissure, then I divided the conjunctiva near the corneal margin with curved scissors. Raising the muscles with a strabismus hook, I divided them close to the sclera. The eye was then grasped on the nasal side with a pair of forceps and tilted to the left or temporal side, which gave an opportunity to pass the curved scissors close to its convexity, until the optic nerve was reached and divided. The ball was then lifted forward and held by the fingers until it was carefully dissected from its socket. The orbit was sponged out with cold water until the hemorrhage ceased. I applied to the closed lids a piece of soft linen, on which was placed a wad of absorbent cotton, which was kept in position by a compress bandage for ten hours, when it was removed and the orbit and lids kept wet with calendula water. The patient was confined to his room for three days and was very comfortable during this time. The wound healed kindly and the stump was ready for an artificial eye in three weeks.

About a week after the left eye was removed, the right eye began to improve and continued to do so for four weeks, when it appeared to be well. He used it for all ordinary work without any trouble.

The danger of the transmission of inflammation from one eye to the other is generally greatest five or six weeks after the accident, still it may come on as early as the eighth or tenth day. On the other hand, it may be years before the injured eye will endanger the other. It is usually believed that the ciliary nerves are the agents by which the transmission takes place, yet the optic nerves, blood vessels and lymph tracks may do the conveying.

Sympathetic inflammation may burst out any time without any warning. It may, however, be preceded by weakened accommodation, photophobia, lachrymation and general fatigue of the eyes.

In treating sympathetic ophthalmia, the main object should be to remove the injured eye as soon as possible, as nothing is gained by waiting for favorable results while the exciting cause is still at work.

An eye that has received an injury of the ciliary body, or contains some foreign substance, should be removed at once, unless you can watch all its workings, so as to remove it before the other becomes seriously affected.

GRAPHITES IN RECURRING GRANULAR CONJUNCTIVITIS.

By F. F. CASSEDAY, Ph. B., M. D., Kansas City, Mo.

For the past four years, Master W. M., aged fifteen years, has suffered from recurring trachoma, with pannus, every winter or spring. His mother is a large, fleshy woman, of rather delicate constitution. His father is of medium height and weight, and is in excellent health. Patient is rather of a scrofulous habit, has light hair, blue eyes, clear complexion, and is of rather lax fibre. History shows a diffuse keratitis in third or fourth year, but no vascular condition of cornea until four years ago.

The attack this year can be described as follows: Left eye—palpebral conjunctiva of both lids inflamed; granulations on upper lid; ocular conjunctiva injected, especially on temporal side; haziness over entire cornea, where it is not covered with pannus; slightly increased lachrymation; intense photophobia, especially of daylight; lids glued together in morning; some scurfs on the lids, especially the upper; sore and cracked at outer canthus; very little pain. Right eye—slight inflammation of palpebral conjunctiva, notably at edges; slight haziness of cornea on nasal side. During the interval of these attacks the eyes are normal, except a slight sensitiveness to light. The present attack has yielded more promptly than usual. The treatment has been, graphites, 6x, on discs, every two to four hours. This treatment was thorough and effectual.

NECROLOGIST'S REPORT.

D. H. BECKWITH, M. D., Necrologist, Cleveland.

During the past year, only two of our members have passed away, and those were well advanced in years. Dr. S. H. Coburn died in Akron, O., in June, 1888, about 70 years of age. I have been unable to obtain an answer to inquiries in regard to the early education and the early history of the deceased. All the information is from my own personal knowledge. In 1852, I visited Akron and formed the acquaintance of Dr. Coburn. He was a genial and polite gentleman. He was then engaged in the practice of homœopathy and a director and active man in the Akron Stove Co., that was doing a large and lucrative business. His practice was not extensive nor lucrative, neither did he care to have it so, as the means outside of his profession were abundant for all his comforts and that of his family, which consisted of a wife and daughter, she being now the wife of ex-Attorney General Kohler. The only time that he ever attended the Society meeting was in Cleveland, in 1867. He was always interested in the reports and the growth of homœopathy. For many years he was the only physician of the new school of medicine in Akron, and was a very popular physician among those that employed him, as well as those who were associated with him in business. The past few years of his life were spent in improving his large farm and adding choice stock, which were to him a great pleasure. It is due the profession to say that his labors were devoted more to making a fortune for himself than the advancement of his profession.

Chas. Oesterlein, M. D., was born in the year 1806, in Stuttgart, Germany, and received his early education there. He came

to Findlay, O., about fifty years ago and began the regular practice of medicine. About fifteen years of practice of that system gave him a large field of labor. So many failures in his work induced him to investigate homœopathy, and such investigation led to his conversion and his adoption of the new practice and that of a high dilutionist, which method he continued until the end of his work, which was in December, 1888; and in January, 1889, he died, beloved and respected as a citizen and as a physician. He was a kind and loving husband, and many were his patients that mourned the death of their good old doctor. He was the pioneer practitioner of homœopathy in Hancock county, and held many offices, bestowed upon him by the people, one of them being sent as a member of the legislature. In 1864, he joined the State Society, and two years ago, for his long and faithful service as a member, the Society conferred upon him the Honorary degree. About fifteen years ago, the Cleveland Homeopathic College bestowed upon him the high compliment that this Society gave him in Toledo in 1886. He never was blessed with children, but she who had been his wife and companion for many years still survives him, although feeble and decrepit with age. The Doctor had a large and lucrative practice, but his kindness to the poor and generosity to all benevolent objects prevented him from accumulating much of this world's goods. All he wanted was an amount sufficient to provide for himself and wife during their lives. He was a great reader and thinker, and he conceived the idea that natural gas was one of nature's products in Findlay; in fact he may be considered its discoverer. In the year 1885, after much labor, he organized a company and they put down the first gas well in Hancock county, when gas was discovered. He sold out his interest to other parties, who made their fortunes.

REMARKS.

DR. ROSENBERGER—It was my privilege to have been a student of Dr. Oesterlein. I was in his office for two years, and I can cer-

tify to his worth as a physician, a good prescriber, as his lucrative practice would show. He was a good citizen in the town in which he lived. It was through his persistent effort that natural gas was discovered in Findlay. He talked that matter up twenty-five years ago. He was given the honor of discovering natural gas in that section of the country.

DR. BARNHILL—I cannot add very much to what has been said. Dr. Oesterlein was like a little boy who was called upon once upon a time to recite some piece at some kind of a gathering. His piece had reference to Garfield. He said, “Garfield was a man—Garfield was a man—Garfield was a man—.” He seemed unable to remember any further, so he sat down. So with Dr. Oesterlein; not only was he man, but he was a homœopath. After his conversion, he found that there was no school of medicine that came so near being perfect as the homœopathic school. He believed that the physician was the hub of the wheel of society; around that hub all other branches of society should centre. He was earnest and sympathetic in all his dealings with the sick. He was a citizen who had a great many friends, and in matters like this natural gas discovery he persisted in the same as he did in his profession. He was also a man who believed there was enough in one school of medicine, and especially in the homœopathic, for any class of men to search for.



CONSTITUTION.

ARTICLE I.

This Society shall be known as the HOMŒOPATHIC MEDICAL SOCIETY OF THE STATE OF OHIO ; and its object shall be the advancement of medical science.

ARTICLE II.

Any physician of good moral character, who is a graduate of any legally constituted and reputable medical college, and who subscribes to the doctrine, *Similia Similibus Curantur*, may be elected a member of this Society, upon recommendation of the Board of Censors, by a vote of two-thirds of the members present at any annual meeting.

ARTICLE III.

Every member shall, upon admission, sign the Constitution and By-Laws, and pay the initiation fee.

ARTICLE IV.

Any non-resident physician, or such other person, resident or non-resident, as may be judged worthy, from his superior attainments in medicine or collateral branches, may be elected an honorary member by a vote of two-thirds of the members present at any annual meeting, and may participate in the proceedings of the Society, but shall not vote, and shall not be eligible to office.

ARTICLE V.

The officers of the Society shall consist of a President, two

Vice-Presidents, a Secretary, Treasurer, and seven Censors, who shall be elected by ballot by a majority of the members present at any annual meeting; and who shall hold office until the adjournment of the annual meeting next after that at which they were elected, and until their successors are chosen and qualified.

ARTICLE VI.

It shall be the duties of the President to preside at the meetings of the Society, to preserve order, to put questions, announce decisions, and to name the members of committees not otherwise appointed.

ARTICLE VII.

It shall be the duties of the Vice-Presidents, in the order of their appointment, to discharge the duties of the President in his absence.

ARTICLE VIII.

It shall be the duty of the Secretary to give notice of the annual and other meetings of the Society, keep a record of its proceedings, conduct its correspondence, and have charge of its archives.

ARTICLE IX.

It shall be the duty of the Treasurer to receive all moneys, make all necessary disbursements, and report the same at the annual meeting.

ARTICLE X.

It shall be the duty of the Censors to receive all applications for membership, and to receive and to report to the Society upon the possession by the candidates of the qualifications required by the Constitution. Three members of the Board of Censors shall constitute a quorum.

ARTICLE XI.

The annual meeting of the Society, at which time its officers shall be elected, shall be held at such place as shall be designated

in the By-Laws, on the second Tuesday in May of each year, and such other meetings shall be held as shall be ordered by the By-Laws.

ARTICLE XII.

Nine members of the Society shall constitute a quorum.

ARTICLE XIII.

An article in this Constitution may be altered or amended by a vote of two-thirds of the members present at the annual meeting, provided that notice of such intended alteration or amendment shall have been given to the Society, when in session at the annual meeting next preceding.

BY-LAWS.

SECTION 1. The annual meeting of the Society shall be held at such place as may be determined by a majority of the members at each regular meeting.

SEC. 2. The initiation fee shall be one dollar, and annual dues shall be two dollars, invariably in advance.

SEC. 3. At each annual meeting committees shall be appointed to report upon such subjects as the Society may designate.

SEC. 4. All communications read before the Society shall become its property; but no paper shall be published as a part of the transactions of the Society without its sanction.

SEC. 5. At the meeting of the Society, the following shall be the regular order of business:

1. Report of Censors; election of active and honorary members.

2. Reports of Treasurer.
3. Election of officers for ensuing year.
4. Report of Committees appointed at previous meeting.
5. Unfinished business.
6. Appointment of Committees.
7. Miscellaneous business.
8. Reading and correcting of minutes.
9. Annual address.
10. Adjournment.

SEC. 6. All papers presented to the Society may be read by synopsis or in full, not to exceed ten minutes, except the Chairman's, which may have fifteen. Discussions shall be limited to five minutes to each speaker and no person shall speak more than twice on the same paper. Each paper shall be offered for discussion immediately after its reading.

SEC. 7. These By-Laws may be altered or amended at any regular meeting, by a vote of a majority of the members present.

STANDING RESOLUTIONS.

Resolved, That we do not deem it best to issue certificates of qualifications to any person or persons except they be already members of this Society, but would refer all such cases to local, county or congressional district societies.

Adopted June 9, 1868.

Resolved, That hereafter no paper shall be published with the proceedings of this Society, the substance of which, at least, has not been addressed to the Society.

Adopted May 11, 1870.

Resolved, That all members of the Society who shall remove from the State, shall remain members of the Society only on the payment of dues up to the time of removal, after suitable notice.

Resolved, That all members of the Society, non-residents of the State, shall be exempt from all financial obligations to the Society.

Adopted May 14, 1873.

Resolved, That hereafter when any member becomes in arrears for three years, his name shall be stricken from the list of members, after due notice. No member in arrears shall receive a copy of the Transactions.

Resolved, That such members may be restored to the list upon payment of arrearage to date of restoration.

Adopted May 12, 1875.



OFFICERS OF THE SOCIETY,

SINCE ITS ORGANIZATION, 1864.

1865.

President—A. O. Blair, M. D., Cleveland.
First Vice-President—E. C. Witherill, M. D., Cincinnati.
Second Vice-President—W. Webster, M. D., Dayton.
Third Vice President—A. C. Barlow, M. D., Lancaster.
Secretary—C. Cropper, M. D., Cincinnati.
Treasurer—G. H. Blair, M. D., Columbus.

1866.

President—Lewis Barnes, M. D., Delaware.
First Vice-President—J. Bosler, M. D., Dayton.
Second Vice-President—A. Shepherd, M. D., Glendale.
Secretary—E. P. Penfield, M. D., Bucyrus.
Treasurer—C. C. White, M. D., Columbus.

1867.

President—D. H. Beckwith, M. D., Cleveland.
First Vice-President—Geo. H. Blair, M. D., Columbus.
Second Vice-President—H. S. Barbour, M. D., Galion.
Secretary—W. Webster, M. D., Dayton.
Treasurer—C. C. White, M. D., Columbus.

1868.

President—J. Bosler, M. D., Dayton.
First Vice-President—G. H. Blair, M. D., Columbus.
Second Vice-President—E. C. Beckwith, M. D., Zanesville.
Secretary—A. Shepherd, M. D., Glendale.
Treasurer—C. C. White, M. D., Columbus.

1869.

President—W. Webster, M. D., Dayton.
First Vice-President—E. L. Flowers, M. D., New Lexington.
Second Vice-President—A. Shepherd, M. D., Glendale.
Secretary—T. P. Wilson, M. D., Cleveland.
Treasurer—C. C. White, M. D., Columbus.

1870.

President—E. B. Thomas, M. D., Cincinnati.
First Vice-President—S. S. Lungren, M. D., Toledo.
Secretary—T. P. Wilson, M. D., Cleveland.
Treasurer—C. C. White, M. D., Columbus.

1871.

President—E. C. Beckwith, M. D., Zanesville.
First Vice-President—W. Webster, M. D., Dayton.
Second Vice-President—Lewis Barnes, M. D., Delaware.
Secretary—H. H. Baxter, M. D., Cleveland.
Treasurer—J. C. Sanders, M. D., Cleveland.

1872.

President—T. P. Wilson, M. D., Cleveland.
First Vice-President—M. H. Slosson, M. D., Dayton.
Second Vice-President—J. M. Parks, M. D., Hamilton.
Secretary—H. H. Baxter, M. D., Cleveland.
Treasurer—J. C. Sanders, M. D., Cleveland.

1873.

President—S. S. Lungren, M. D., Toledo.
First Vice-President—J. D. Buck, M. D., Cincinnati.
Secretary—H. H. Baxter, M. D., Cleveland.
Treasurer—J. C. Sanders, M. D., Cleveland.

1874.

President—J. D. Buck, M. D., Cincinnati.
First Vice-President—J. H. Coulter, M. D., Columbus.
Second Vice-President—G. J. Jones, M. D., Grafton.
Secretary—H. H. Baxter, M. D., Cleveland.
Treasurer—J. C. Sanders, M. D., Cleveland.

1875.

President—J. R. Flowers, M. D., Columbus.
First Vice-President—C. C. White, M. D., Columbus.
Second Vice-President—W. M. Detweiler, M. D., Findlay.
Secretary—W. A. Phillips, M. D., Cleveland.
Treasurer—J. C. Sanders, M. D., Cleveland.

The following year, 1876, being the Centennial, and the profession being largely occupied with the World's Convention, which met in Philadelphia, no session of the Society was held.

1877.

President—W. M. Detweiler, M. D., Findlay.
First Vice-President—R. B. Rush, M. D., Salem.
Second Vice-President—Wm. Owens, M. D., Cincinnati.
Secretary—W. A. Phillips, M. D., Cleveland.
Treasurer—J. C. Sanders, M. D., Cleveland.

1878.

President—J. B. Hunt, M. D., Delaware.
First Vice-President—H. H. Baxter, M. D., Cleveland.
Second Vice-President—E. P. Gaylord, M. D., Cleveland.
Secretary—A. N. Ballard, M. D. (*pro tem.*), Shelby.
Treasurer—J. C. Sanders, M. D., Cleveland.

1879.

President—H. H. Baxter, M. D., Cleveland.
First Vice-President—E. P. Gaylord, M. D., Toledo.
Second Vice-President—Wm. Owens, M. D., Cincinnati.
Secretary—H. M. Logee, M. D., Oxford.
Treasurer—J. C. Sanders, M. D., Cleveland.

1880.

President—E. P. Gaylord, M. D., Toledo.
First Vice-President—Wm. Owens, M. D., Cincinnati.
Second Vice-President—E. Gillard, M. D., Sandusky.
Secretary—J. A. Gann, M. D., Wooster.
Treasurer—J. C. Sanders, M. D., Cleveland.

1881.

President—H. M. Logee, M. D., Oxford.
First Vice-President—M. H. Parmalee, M. D., Toledo.
Second Vice-President—G. W. Moore, M. D., Springfield.
Secretary—H. E. Beebe, M. D., Sidney.
Treasurer—J. C. Sanders, M. D., Cleveland.

1882.

President—Wm. Owens, M. D., Cincinnati.
First Vice-President—E. Van Norman, M. D., Springfield.
Second Vice-President—C. C. White, M. D., Columbus.
Secretary—H. E. Beebe, M. D., Sidney.
Treasurer—J. C. Sanders, M. D., Cleveland.

1883.

President—C. C. White, M. D., Columbus.
First Vice-President—C. E. Walton, M. D., Hamilton.
Second Vice-President—W. A. Phillips, M. D., Cleveland.
Secretary—H. E. Beebe, M. D., Sidney.
Treasurer—J. C. Sanders, M. D., Cleveland.

1884.

President—J. C. Sanders, M. D., Cleveland.
First Vice-President—J. P. Geppert, M. D., Cincinnati.
Second Vice-President—M. P. Hunt, M. D., Delaware.
Secretary—H. E. Beebe, M. D., Sidney.
Treasurer—William T. Miller, M. D., Cleveland.

1885.

President—R. B. Rush, M. D., Salem.
First Vice-President—G. C. McDermott, M. D., Cincinnati.
Second Vice-President—E. R. Eggleston, M. D., Mt. Vernon.
Secretary—H. E. Beebe, M. D., Sidney.
Assistant Secretary—S. P. Geiser, M. D., Cincinnati.
Treasurer—Wm. T. Miller, M. D., Cleveland.

1886.

President—H. E. Beebe, M. D., Sidney.
First Vice-President—A. Claypool, M. D., Toledo.
Second Vice-President—O. D. Childs, M. D., Akron.
Secretary—C. E. Walton, M. D., Hamilton.
Assistant Secretary—H. A. Chase, M. D., Toledo.
Treasurer—W. T. Miller, M. D., Cleveland.

1887.

President—A. Claypool, M. D., Toledo.
First Vice-President—J. W. Clemmer, M. D., Columbus.
Second Vice-President—R. N. Warren, M. D., Wooster.
Secretary—C. E. Walton, M. D., Hamilton.
Assistant Secretary—C. L. Cleveland, M. D., Cleveland.
Treasurer—H. Pomeroy, M. D., Cleveland.

1888.

President—N. Schneider, M. D., Cleveland.
First Vice-President—E. R. Eggleston, M. D., Mt. Vernon.
Second Vice-President—J. A. Gann, M. D., Wooster.
Secretary—C. E. Walton, M. D., Hamilton.
Assistant Secretary—M. B. Hunt, M. D., Delaware.
Treasurer—H. Pomeroy, M. D., Cleveland.

1889.

President—C. E. Walton, M. D., Hamilton.
First Vice-President—C. L. Cleveland, M. D., Cleveland.
Second Vice-President—Frances G. Derby, M. D., Cleveland.
Secretary—Frank Kraft, M. D., Sylvania.
Assistant Secretary—C. D. Crank, M. D., Cincinnati.
Treasurer—H. Pomeroy, M. D., Cleveland.
Necrologist—D. H. Beckwith, M. D., Cleveland.

MEMBERS.

By action of the Society, members neglecting the payment of dues for three years, after proper notification from the Treasurer, shall have their names dropped from the roll of membership.

NAMES.	LOCATION.	ADMITTED.
Adams, S. E.	Peoria, Ill.	1869
Allen, Geo. F.	Youngstown,	1888
Allen, H. C. (Honorary)	Ann Arbor, Mich.	1883
Amesbury, W. Raleigh	Cincinnati,	1889
Andrews, James	Coldwater,	1882
Baldwin, Orpha D.	Portland, Oregon,	1887
Ballard, A. N.	Birmingham, Ala.	1877
Baker, D. F.	Cleveland,	1879
Barlow, A. C.	Toledo,	1865
Barbour, H. S.	Galion,	1865
Barnhill, T. G.	Findlay,	1875
Barnes, Lewis (Honorary)	Kipton,	1864
Baxter, H. H.	Cleveland,	1868
Bean, J. L.	Medina,	1871
Beckwith, D. H.	Cleveland,	1864
Beckwith, E. C.*	Columbus,	1866
Beckwith, S. R.	Elizabeth, N. J.	1864
Beebe, H. E.	Sidney,	1873
Biggar, G. G.	Geneva,	1887
Biggar, H. F.	Cleveland,	1867
Blinn, E. P.	Sparta,	1880

* Deceased.

NAMES.	LOCATION.	ADMITTED.
Blair, A. O. (Honorary)*	Westerville,	1864
Bradford, T. C.	Cincinnati,	1864
Bradley, B. A.	Cincinnati,	1882
Brenizer, N. O.	Prospect,	1887
Brickley, Laura	Harrison,	1888
Brown, B. P.*	Cleveland,	1871
Buell, A. C.	Cleveland,	1885
Buell, E. C.	California,	1877
Buck, J. D.	Cincinnati,	1869
Canfield, M. A.	Cleveland,	1877
Carter, H. W.	Cuyahoga Falls,	1871
Carter, R. B.	Akron,	1887
Carpenter, W. B.	Columbus,	1883
Champlin, H. D.	Cleveland,	1887
Childs, O. D.	Akron,	1885
Church, T. T.	Salem,	1866
Claypool, Albert	Toledo,	1877
Clemmer, J. W.	Columbus,	1884
Cleveland, C. L.	Cleveland,	1883
Clark, F. M.	Salem,	1884
Clark, G. E.	Stillwater, Minn.	1883
Coffeen, C. R.	Piqua,	1882
Coburn, S. H.*	Akron,	1867
Connell, R. D.	Columbus,	1881
Cooper, C. M.	Cincinnati,	1889
Countryman, A. M.	Cincinnati,	1889
Cranz, D. E.	Wadsworth,	1886
Crank, C. D.	Cincinnati,	1877
Crawford, J. M.	Cincinnati,	1884
Crismore, Jas. M.	Helena,	1886
Croft, W. B.	Medina,	1884
Cropper, Chas. (Honorary)	Lebanon,	1864
Curtis, H. W. (Honorary)	Chagrin Falls,	1867
Cushing, C. F.	Elyria,	1868

* Deceased.

NAMES.	LOCATION.	ADMITTED.
Dake, J. P. (Honorary)	Nashville, Tenn.	1870
Derby, Frances G.	Columbus,	1880
Deetrick, J.	Youngstown,	1887
Deuel, W. E.	Piqua,	1888
Dickson, Madge	Dayton,	1889
Disbro, Ira W.	Cleveland,	1884
Dove, Alpheus	Brookville,	1883
Duncan, T. C. (Honorary)	Chicago, Ill.	1881
Eaton, M. M.	Cincinnati,	1880
Edgar, S. F.	Zanesville,	1874
Ehrman, Benj. (Honorary)*	Cincinnati,	1871
Ehrmann, Geo. B.	Cincinnati,	1889
Eggleston, E. R.	Mt. Vernon,	1877
Eisenhauer, J. A.	Cleveland,	1885
Ellis, J. T.	Waynesville,	1885
Fahnestock, J. C.	Piqua,	1882
Ferris, Jacob	College Hill,	1889
Flowers, F. L. (Honorary)	Lancaster,	1864
Flowers, J. R.	Columbus,	1880
Fowler, E.	Cleveland,	1868
Frasch, Geo. F.	Metamora,	1889
Freeman, E. R.	Wapakoneta,	1887
Frost, W. A.	Tecumseh, Mich.	1881
Gann, J. A.	Wooster,	1877
Gardner, A. L.	Painesville,	1884
Gault, Mary A.	Cleveland,	1887
Gaylord, E. P. (Honorary)	Detroit, Mich.	1872
Gaylord, Wm.	Sandusky,	1885
Geiser, S. R.	Cincinnati,	1880
Geohegan, Wm. A.	Cincinnati,	1889
Ginn, C. F.	Miamisburg,	1882
Gillard, Edwin	Sandusky,	1875
Gilliland, Sarah	Covington, Ky.	1885
Goodwin, E. M.	Toledo,	1872

* Deceased.

NAMES.	LOCATION.	ADMITTED.
Goucher, E. T.	Cleveland,	1885
Grant, Geo. D.	Springfield,	1881
Grabill, J. D. (Honorary)	Shreveport, La.	1882
Griffin, C.	Clyde,	1886
Griggs, O. P.	Ashtabula,	1885
Griste, L. G.	Twinsburg,	1884
Hall, E. M.	Fredericktown,	1873
Harris, J. D.	Franklin,	1882
Hart, F. O.	West Unity,	1886
Hartshorn, D. W.	Cincinnati,	1871
Hartwell, Emma B.	Toledo,	1888
Hartwell, H. W.	Toledo,	1886
Hastings, W. C.	Van Wert,	1887
Haines, J. W.*	Cincinnati,	1871
Hale, T. T.	Spring Hills,	1882
Hayden, A. S.	Columbiana,	1884
Hershburger, J. P.	Lancaster,	1887
Hills, H. B.	Cincinnati,	1889
Hitchcock, Lena E.	Geneva,	1887
Holaday, Elwood	West Elkton,	1889
Hooper, J. R.	Wellsville,	1884
Houston, H. C.	Urbana,	1882
Hoyt, C.	Chillicothe,	1882
Hoyt, Wm.	Hillsborough,	1871
House, R. B.	Springfield,	1881
Howell, C. A.	Columbus,	1889
Howells, Martha M.	Cincinnati,	1880
Howard, Elmyra Y.	Cincinnati,	1871
Hunt, B. S.	Tawana,	1882
Hunt, M. P.	Delaware,	1881
Hunt, Stella	Cincinnati,	1889
Hunt, W. H. (Honorary)	Covington, Ky.	1871
Ireland, G. M.	Jeffersonville,	1882
Jewitt, E. H.	Cleveland,	1887

* Deceased.

NAMES.	LOCATION.	ADMITTED.
Jones, G. J.	Cleveland,	1873
Johnson, R. B.	Ravenna,	1869
King, Julius	Cleveland,	1884
Kinsell, C. R.	Columbus,	1864
Kirk, Ellen M.	Cincinnati,	1880
Kirkland, W. H.	Massillon,	1887
King, John C.	Banning, Cal.	1883
Knoff, Wm.	Primrose,	1872
Kraft, Frank	Sylvania,	1888
Linn, T. E.	Cincinnati,	1889
Linkmeyer, M. Bella	Lockland,	1889
Lee, Geo.	Washington, D. C.	1877
Lodge, E. A.* (Honorary)	Detroit, Mich.	1864
Logee, H. M.	Newton, Kansas,	1877
Loomis, F. R.	Jefferson,	1886
Lounsbury, O. W.	Cincinnati,	1873
Lovett, A. A.	Eaton,	1885
Lukens, Benj. F.	Germantown, Pa.	1870
Lungren, S. S.	Toledo,	1867
Mackintosh, C. A.	Cincinnati,	1885
Martin, T. C.	London, Eng.	1887
Marvin, J. J.	Pleasant Ridge,	1878
Marks, R. T.	Leetonia,	1884
Meade, S. J. D.	Cincinnati,	1889
Means, J. W.	Troy,	1886
Metzger, Chas.	Lima,	1884
McConnell, R. N.	Upper Sandusky,	1872
McCormick, A. L.	Cincinnati,	1885
McCreary, W. L.	Knoxville, Tenn.	1874
McDermott, G. C.	Cincinnati,	1880
McMahon, W. R.*	Marion,	1870
Miller, William T.	Cleveland,	1879
Mills, M. H.	Attica,	1882
Miller, John M.	Springfield,	1882

* Deceased.

NAMES.	LOCATION.	ADMITTED.
Mitchell, J. A.	Newark,	1886
Moore, G. W.	Springfield,	1872
Morrill, E. C.	Norwalk,	1877
Moffitt, M. M.	London,	1882
Morrill, C.	Cleveland,	1868
Murdock, Wm.	Akron,	1877
Munns, C. O.	Oxford,	1885
Norris, J. C.	Cleveland,	1886
Oesterlin, Chas. (Honorary)*	Findlay,	1864
Olmstead, C. C. (Honorary)	Milwaukee,	1864
Outland, W. H.	Zanesfield,	1882
Owens, Wm.	Cincinnati,	1871
Owens, J. B.	Los Angeles, Cal.	1864
Owens, Wm., Jr.	Cincinnati,	1885
Palmer, O. A.	Warren,	1888
Parmelee, M. H.	Toledo,	1872
Parsons, Kate	Cleveland,	1877
Pauly, C. A.	Cincinnati,	1888
Penfield, E. P.	Bucyrus,	1865
Phillips, W. A.	Cleveland,	1879
Pomeroy, H.	Cleveland,	1884
Porter, Phil.	Detroit,	1888
Pratt, E. H. (Honorary)	Chicago, Ill.	1889
Pulte, J. H. (Honorary)*	Cincinnati,	1870
Quay, George H.	Colamer,	1885
Reddish, A. W.	Sidney,	1883
Rhonehouse, G. W.	S. Toledo,	1886
Ring, Hamilton*	Urbana,	1870
Ring, Chas. F.	Urbana,	1885
Robb, Isaac	Cincinnati,	1889
Rockwell, J. W.	Akron,	1887
Rodgers, L. D.	Chicago,	1888
Rorick, F. H.	Chicago, Ill.	1886
Rosenberger, A. S.	Covington,	1889

* Deceased.

NAMES.	LOCATION.	ADMITTED.
Rowsey, W. T.	Toledo,	1872
Royer, H. C.	Massillon,	1877
Rush, R. B.	Salem,	1868
Rust, E. G.	Wellington,	1887
Salisbury, S. S.	Washington C. H.	1877
Sanders, J. C.	Cleveland,	1864
Sanders, J. C.	Cleveland,	1884
Sawyers, C. E.	La Rue,	1883
Schneider, N.	Cleveland,	1865
Shappee, W. A.	Xenia,	1889
Shepherd, A.	Glendale,	1864
Sherwood, H. A.	Warren,	1877
Schell, F. H.	Cincinnati,	1880
Sheets, C. A.	St. Mary's,	1881
Smith, G. W. (Honorary)	Cincinnati,	1864
Stephens, J. A.	Cleveland,	1884
Stepfield, A. E.	Doylestown,	1887
Steingraver, F. C.	Bluffton,	1883
Stewart, Tom M.	Cincinnati,	1888
Squires, U. H.	Fostoria,	1886
Sturtevant, L. P.	Conneaut,	1879
Sutphin, J. T.	Middletown,	1871
Taylor, F. P.*	Toledo,	1886
Thorp, Abner	Avondale,	1887
Thorpe, S. L.	Cleveland,	1887
Tims, W. A.	Cleveland,	1888
Tipple, R. D.	Toledo,	1887
Tracy, Alice M.	Urbana,	1887
True, C. C.	Cleveland,	1885
Vance, J. W.	Madison, Wis.	1878
Van Norman, E. V.	San Diego, Cal.	1871
Van Norman, H. B.	Cleveland,	1865
Viets, B. B.	Cleveland,	1886
Waddell, J. H.	Wauseon,	1886

* Deceased.

MEMBERS.

239

NAMES.	LOCATION.	ADMITTED.
Waddell, Flora A.	Wauseon,	1886
Walters, Z. D.	Marietta,	1872
Walton, C. E.	Cincinnati,	1880
Warren, R. N.	Wooster,	1879
Watts, Wm.	West Toledo,	1881
Webster, Wm.	Dayton,	1864
Webster, J. K.	Altoona, Fla.	1882
Wells, T. E.	Tiffin,	1886
Whitehead, J. H.	Bowling Green,	1877
White, C. C.	Columbus,	1864
Wilson, J. H.	Bellefontaine,	1867
Wilson, T. P. (Honorary)	Detroit, Mich.	1864
Williams, J. W.	Weston,	1886
Williams, W. L.	Cincinnati,	1889
Worthington, A. F.	Cincinnati,	1870
Wright, N. E.	Berea,	1879
Wunderlich, E. J.	Cleveland,	1884
Zimmerman, Geo.	Fremont,	1887





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